THE FARMER'S CABINET,

DEVOTED TO AGRICULTURE, HORTICULTURE AND RURAL ECONOMY.

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Proceedings of the Philadelphia Society for Promoting Agriculture.

In our last publication we referred briefly to the Cattle Show and Sale held by the Society, on the 5th and 6th Nov. We give below the reports of the various Committees.

Report of the Committee of Arrangement to the Agricultural Society.

The Exhibition and Fair by the Philadelphia Society for promoting Agriculture, held on the 5th and 6th of November, 1838, is the first attempt of the kind made by the friends of agriculture near Philadelphia for many years, and with pride and pleasure the committee of arrangement report on the result of this effort, to revive a spirit of energy and activity amongst the farmers of eastern Pennsylvania. The late period at which the exhibition was held, and the short notice given to farmers, occasioned apprehensions that a meagre display would be made, notwithstanding the Society was aware that an abundance of fine stock of various kinds existed within our district.

The weather was unfavorable on the first day, and previous to the show, which doubtless deterred many who had intended contributing, yet we are happy to report that the quantity of live stock on the ground was very large, particularly of neat cattle, horses and sheep.

That the quality was such as to establish a high character for the raisers of stock around Philadelphia, is, your committee think, fully evinced by the reports of the judges herewith submitted. The committee of arrangement would gladly have enumerated the owners of stock sent to the exhibition, and contemplated doing so, but nearly all the animals coming in on the morning of the first day were entered so rapidly that they found it impracticable to make a correct list. There were about eighty head of cattle, one hundred and forty sheep, and twenty horses, besides a number of hogs, jacks, &c. on the ground.

The sale was conducted with considerable spirit, although much inconvenience was experienced on account of animals not having been regularly entered previous to the day of sale. Most of the stock that was sold brought very fair prices, and some of fine breed and good pedigree commanded rates that encourage liberality in improving the quality of live stock.

It may be well to remark that the number of bulls crossed by Durhams was beyond the demand, and we think that the attention of farmers should be directed more to thorough-bred males, which may answer well for crossing with half-blooded cows, but a part-blooded bull derives very little advantage from his imperfect origin.

For steers a cross of the Durham is believed to be highly beneficial, and the specimens exhibited go far to confirm this opinion.

The success which has attended this exhibition will doubtless encourage a continuance of them, and in future many arrangements and regulations can be adopted, the necessity of which was not foreseen, and would have added greatly to the satisfaction of contributors. One of the principal difficulties was the short space of time afforded to the judges, and the amount of duty some of them had to perform. It was impossible for three committees of judges in a short afternoon, to examine with sufficient accuracy so many animals, and where decisions may not accord with the opinions of competitors, we trust they are too generous to attribute the results to any improper motives, but will rest their hopes for better fortune on a future and similar occasion, when the Society hopes to be

enabled to offer larger and more numerous premiums.

Assuredly, annual exhibitions and sales will be held so long as the farmers of Pennsylvania and the adjoining states, with their present liberal spirit, furnish the means and motives.

In conclusion, the committee recommend the obtaining of a permanent location, where suitable stabling, sheds, pens, &c. can be had or provided, and such arrangements made as will exhibit animals to advantage.

Preparations should at the same time be made and inducements offered to bring forward implements of agriculture and productions of the soil, which on the present occasion have not received an attention corresponding with their importance to the farmers.

The committee of arrangement have to regret that the premiums were so small, and would earnestly recommend the early adoption of measures for obtaining from the legislature of Pennsylvania the re-enactment of the law of 30th March 1821, when the enlargement of their funds would enable the Society to be much more useful to the agricultural community.

Thomas Rotch, Chairman.
K. Smith,
N. Biddle,
James Thornton,
Geo. W. Roberts,
James Gowen,
John Fox,
Robt. A. Parrish,
Algn. S. Roberts, Secretary.

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Report of the Committee on Neat Cattle.

The Committee on Neat Cattle, in making up their report, could not but regret that the limited number of premiums offered prevented them from giving to many more of the owners of the superior animals on the ground some substantial token of their approbation, as in many instances it was difficult to decide on the claims of the different competitors. Of the many who were necessarily excluded from premiums, the following deserve particular notice.

1. Mr. Canby's 2 year old imported Durham bull, Maxwell, and cow Dulcebella, both beautiful, but excluded from a premium by reason of their not belonging to the state.

2. Mr. John Barney's red bull Defiance, sent with several other cattle besides those which obtained premiums, were deserving of much praise for their fine forms and sizes.

3. Mr. Penn Gaskill's bull Llewellyn, (Whitaker's stock) was worthy of high praise and greatly admired.

4. Mr. Wolbert's stock excited general admiration for their fine forms, size, and excellent order, the cows exhibited every mark of deep milkers, a quality which they are known to possess.

5. Mr. Joshua Longstreth also exhibited a beautiful imported Durham cow, possessing many fine points, and attracted great and deserved notice.

6. Mr. James Gowen exhibited a beautiful heifer calf from thorough bred Durham stock.

7. Mr. Thomas Rotch exhibited several specimens of excellent stock, besides those which obtained premiums.

8. The committee have great pleasure in expressing their high sense of the skill and judgment shown by Mr. I. W. Roberts in the selection of his stock, and the excellent condition in which they appeared.

9. Mr. Frederick Haines, of Marietta, Lancaster county, is entitled to great praise for his fine stock, besides the young animal which was rewarded, and the thanks of the Society for his zeal in promoting its object by bringing his stock so great a distance.

10. In addition to the foregoing, the following gentlemen exhibited some fine animals which added greatly to the interest of the fair.

Mr. Wm. Warner Roberts brought a fine bull of mixed blood; Mr. S. Ott a half-blood Durham bull calf of great beauty; Mr. S. Jones a half-blood of much promise; Mr. John Supplee, a bull of the Alderney and Holstein breeds of great size.

11. Mr. Kenderton Smith, Mr. Ovenshien, Mr. Sharp, Mr. Morris, Mr. P. H. Coulter, Mr. Purcel, Mr. Helmbold, and Mr. Comfort, brought specimens of well kept farm stock of different degrees of mixed blood.

PREMIUMS.

The committee on cattle award the following premiums:

For the best imported bull above 1 year old, the premium of $10 is awarded to C. J. Wolbert, for his white bull Colostra, of 2 years old, of the improved Durham blood.

For the second best imported bull, the premium of $5 is awarded to Thomas Rotch, for his bull Bruce, of 2 years old.

For the best native bull above 1 year old, the premium of $10 is awarded to John Barney, for his bull Defiance 2d.

For the second best native bull above 1

year old, the premium of $5 is awarded to John Andrews, for his bull Austerlitz.

For the best native bull calf from 4 to 12 months old, a premium of $5 to C. J. Wolbert, for his calf Roderic, from his imported cow, Isabella.

For the second best native bull calf, from 4 to 12 months old, a premium to Thomas Roich of $3 for his bull calf Cecil, from his imported cow, Ruby.

For the best imported cow, the premium of $10 is awarded to Dr. Geo. Uhler, for his cow Cato, of 6 years old.

For the second best imported cow, the premium of $5 was awarded to C. J. Wolbert, for his cow Isabella.

For the best native cow, the premium of $10 is awarded to A. S. Roberts, for his cow, Queen of Chester.

For the second best native cow, the premium of $5 to C. J. Wolbert, for his cow Glenfield Lass.

For the best imported heifer, the premium of $5 to Joseph Sharp, for his white heifer Primrose.

For the best native heifer above 4 months old, a premium of $5 to Dr. Uhler, for his heifer, Miss *Merion*.

For the second best native heifer above 4 months old, the premium of $3 to C. J. Wolbert, for his heifer Cinderella.

The committee award also an honorary premium of $3 to Mr. J. Barney, for his heifer Bright Eyes, although not authorized by the conditions of the prize list.

For the best calf under 4 months old, the premium of $5 to Joshua Longstreth for his bull calf *John Bull*.

For the second best calf under 4 months old, the premium of $3 to Frederick Haines, of Marietta, Penn.

For the best steer fitted for slaughter, the premium to Isaac W. Roberts, (of Montgomery county,) for his fine half-blood steer of 3 years old, $10.

For the second best steer fitted for slaughter, the premium of $5 to Isaac W. Roberts, for his dun steer of 2 years and 8 months old.

JAMES THORNTON,
GEO. W. ROBERTS,
PHILIP REYBALD,
AARON CLEMENTS,
JAMES MEASE.
} Committee.

Report of Committee on Horses and Jacks.

The Committee on Horses and Jacks of the Philadelphia Agricultural Society, respectfully present the following report:

By the terms of the Society's advertisement, the committee found themselves undirected as to the character of the animals which they should recommend for premiums, except that they should be the *best of their kind*. Thus unrestricted, it became necessary for the committee to prescribe principles for themselves, by which they should be guided in their decisions, more especially as regarded the horses. The most *useful* beast they believe to be *the best*, or in other words, that the kind of horses that are capable of doing the greatest amount of service with the least cost to the owners, and which are most generally adapted to agricultural purposes, are those whose propagation it is the wish of the society to promote.

The extensive introduction of canals and railroads into our country, has nearly superseded teams in the transportation of produce and merchandise between distant points, and have, in great measure, rendered unnecessary the kind of horses employed in that service. And while the heavy team horse is thus banished from the *road*, the ox has taken his place on the *farm*. The kind of horse therefore which seems now to be preferred, is the moderate sized, compact, spirited and agile beast, such as we find in the English race horses, originally of Arabian blood. The larger sized horses of that character, at least in the present state of our country, undoubtedly are more generally useful than any other. The high prices which they command well establishes this fact.

In naming the animals, which in the opinion of the committee merit premiums, they wish not to disparage others less fortunate in competition, some of whom, especially among the horses and colts, do great credit to their owners.

The premium for the best stallion, the committee think is due to Calendar Irvine, for his stud horse *Busirus*. This horse has been so long and so generally known in this neighborhood as to need no description. The fact that *all* the *colts* offered for premiums are his, is abundant proof that he is a good foal getter.

The premium for the *second best* stallion, the committee adjudge to T. B. Jacobs, for his imported Arabian horse Ibrahim Pacha. Ibrahim was imported by Com. Elliott, and although rather under size, and of a light grey color, which are objectionable, he is so perfect in almost every point as to entitle him to rank among the first of his species.

The committee consider Robert C. Hemphill's grey mare Cicerone to be "*the best brood mare*." She is strongly made, of good blood, and is the mother of some of our fleetest horses. They think Geo. W

Roberts' bay mare Doll is the "*second best brood mare.*"

John Cochran's 2 year old sorrel horse colt, by Busirus, the committee think is entitled to the first colt's premium, and Geo. W. Roberts' 1 year old sorrel colt, also by Busirus, entitled to the second premium.

To Andrew Young, for his large 5 year old Spanish jack, the committee recommend that the premium for the best jack be awarded. Of jennets, the committee regret that none were exhibited.

Amongst the horses presented, were John Randolph, by B. Chew, Esq. He is an animal of known celebrity and of high blood, and had many admirers. There was also a beautiful young stud from Judge Jones—not entered for competition.

Mr. G. W. Roberts had two excellent colts, full brothers of the one to which a premium was awarded, and evincing the fine quality of the stock from which they are derived.

R. M. Huston,
John L. Vansant,
Robert T. Potts, } Committee.

Nov. 6, 1838.

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Report of the Committee on Sheep and Hogs.

The Committee appointed to judge of the Hogs and Sheep, at the agricultural exhibition, held at Elliot's Hotel, on the 5th of November, 1838—report, that

There was no competition in hogs, but they award to Mr. Bennett a premium of $5 for his *Boar*, and to Algn. S. Roberts, a premium of $3, for an *imported Sow*, as stock they think worthy of propagating.

Mr. Thomas Rotch also presented two handsome pigs of the Chinese breed, which if crossed by the Berkshire, might make an excellent stock.

The Committee award

For the *best imported ram*, (Bakewell,) to Mr. John Barney, of Philadelphia county	$5 00
For the *second best ram*, to Isaac W. Roberts, Montgomery county,	3 00
For the *four best ewes*, (Bakewell,) to Mr. John Barney,	8 00
For the *four second best ewes*, (Southdown,) to I. W. Roberts,	4 00
For the *four best lambs*, to Isaac W. Roberts,	5 00
For the *four second best lambs*, to Wm. Barber, of Delaware county,	3 00

The committee also report, that

Major Philip Raybold, from the State of Delaware, exhibited *three ewes* and *one ram*, which they pronounce very fine, and entitled to the Society's certificate of distinction.

They also observed a lot of very fine sheep, belonging to R. A. Parrish, among which were some excellent Southdown and crosses of Southdown and Merino.

The sheep exhibited by Wm. Barber, thirteen in number, were a very handsome collection, and showed fine breeding.

The committee recommend a complimentary premium to Mr. Barber of $3, for his Southdown ram, an excellent animal, and in the estimation of some equal to those enumerated above.

On the second day, four remarkably large and fat barrows were exhibited by Mr. Robb of Chester county.

Thos. Walmsley,
Ralph Eddows.

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Report of the Committee on Agricultural Implements.

The Committee on Implements of Husbandry, report,

That the following comprises the whole of the implements exhibited for inspection, viz:

Sowing machine, offered by Thos. Rotch, Esq. of Philadelphia.

Green's patent straw cutter, J. I. Hitchcock, Philadelphia.

Corn Plough, John Hernly, East Hempfield, Lancaster county.

Sausage cutter, George Hydrick, Springfield, Montgomery county.

The sowing machine is not of late invention, its being so seldom used in the field, presupposes that something more is yet to be done than is attained by the implement in question, before hand sowing in field culture will yield to machinery. The committee believing that the object of their appointment was to award, to new and unquestionable improvements tending to facilitate the operations of agriculture, could but return thanks to Mr. Rotch for his zeal in promoting the interests of the society, and his kindness in exhibiting the sowing machine.

Green's patent straw-cutter received the particular attention of the committee. They agree that it is a clever machine, but until further improvements be made on it, which they think it is susceptible of, they could not award to it a more favorable notice—although it had no competitor.

The corn plough is a new invention, combining the properties of a plough and hoe: it is double shared. Its operations are confined to a period in the growth of corn when the cultivator is generally used. A share being on either side the plant, in separate furrows, when it works, it consequently straddles the hills, or rows of corn, and can be of no service in ploughing when the corn has attained a considerable height,

The committee had no opportunity to test the merits of this plough, and therefore abstained from giving to it any special sanction—they would however submit, whether it would not be advisable for the society to hold it in view till the spring season, when its utility can fairly be put to trial.

The sausage cutter is a neat and useful invention, seemingly so appropriate and unique, that the committee awarded to its inventor, George Hydrick, the sum of five dollars.

The committee beg leave to offer the following resolutions :—

Resolved—That the committee on implements of husbandry be continued, until the stated meeting in July next, for the purpose of *further inspecting* of Hernly's double share corn plough, with powers similar to those entrusted to them at the late exhibition.

Resolved—That the sum of five dollars be appropriated as a premium to George Hydrick, for his useful invention in sausage cutting. *All which is respectfully submitted.*

JAMES GOWEN,
DANIEL COMFORT,
ISAAC W. ROBERTS.

November 6, 1838.

For the Farmers' Cabinet.

Lime and Marl.

Providence has furnished means, let man make the application of them.

Lime and marl appear to be designed as the great regenerators of the soil of this country, and the canals and rail roads made and making will facilitate the dispersion of these most important agents of agricultural improvement to every part of the United States. The use of these fertilizing manures has increased within the last ten years, at least one hundred fold in the old settlements, where the soil had very generally been under the process of an exhausting system of cropping, without making adequate returns of nutriment for plants, from a very early period in the history of our country.

Much land naturally of a good quality, and more that had been less favored by natural causes, had either failed to yield an adequate return for the annual labor bestowed upon it, or had ceased to be cultivated at all, until attention was turned to the regenerating effects of lime and marl.—Since which, as their application has progressed, the surface of whole districts of partially worn-out lands, have suddenly changed from a melancholy sterility to the most pleasing and animating fertility and productiveness.

New Jersey has derived vast advantages from the copious application of both of these mineral manures; and the industrious and enterprising farmers of that thriving state are annually reaping rich returns from their early, and still increasing efforts, to apply more and more of these precious ingredients to their kind and easily cultivated soil. In numerous instances land that had long been considered too sterile to be worthy of tillage, has been brought into a state of fertility by the application of lime and marl, so as to rival in point of productiveness the most favored soil in the state.

It is believed that the cultivated and improved parts of New Jersey, at this period, are worth three times what they would have commanded, previous to the general introduction of lime and marl as resuscitating agents in agricultural processes. The use of them, in every known instance, has so far exceeded previous expectation, as to stimulate even the indolent and careless to regard their use with the most pleasing anticipations.

The traveler in passing through the sandy and formerly sterile plains of this state, is astonished to see large herds of fine cattle feeding in luxuriant pastures, where twenty years ago there was not grass enough grown to justify the expense of an inclosure.

The districts where marl abounds, and lime is easily and cheaply procured, by means of the tide waters that pass far into the interior, are so rapidly advancing in productiveness, that they will soon take rank with the most fertile lands in the eastern part of the United States.

The state of Delaware and the eastern shore of Maryland have begun the work of resuscitation, with the same agents, and so far as it has progressed, with like success. They possess abundant supplies of the green sand marl and marine shells, and are well situated for procuring stone lime, on terms that will insure its profitable application to a most generous soil, that has heretofore been most unkindly treated, in the attempt at perpetual cropping without making any adequate returns.

The example has now been set, and the experiment fairly made, clearly demonstrating the greatly increased profits and advantages arising from the copious application of the great regenerating agents lime and marl to the worn out soil; and the farmers on the peninsula who study their true interests, are determined to move forward boldly and firmly, to regain the ground they had lost, by neglecting so long to use the means within their power of renovating their once fertile, but now worn-out farms.

Pennsylvania is destitute of the green sand or marl, but she possesses within her borders inexhaustible beds of the best limestone, and these are so dispersed through

the various districts of the State, as to make it of easy access to most of its inhabitants. A knowledge of the advantages derived from the application of lime has long been known to many who have availed themselves of its use; but during the last ten or fifteen years, the consumption of it, for agricultural purposes, has been prodigiously extended, and at the present time very few intelligent farmers omit a regular application of it in the rotation of their crops; and it appears probable from the energy and spirit displayed by very many in the improvement of the soil, that a gradual renovation of it will take place, and that in a few years we shall see our farms brought up to their original state of fertility.

Those who have carefully observed the effects of the application of lime to the soil, concur in the opinion, that it renders a clay soil more open and porous, and that when it is ploughed, it is more friable, or falls to pieces more readily—that it compacts a loose sandy soil, rendering it more firm and retentive of moisture.

That where lime has been applied, vegetable manure or dung is more durable, producing its beneficial effects for a longer period of time; and it has been noticed, that crops sustain less injury from drought where the soil has been dressed with lime.

Grass and grain grow with more luxuriance, are of a deeper hue, continue longer green, and are more tardy in ripening, where there has been an application of lime; this is very conspicuously the case with wheat and oats; they are often a week or ten days longer in filling and perfecting the grain, than when no lime had been applied; but this procrastination in ripening adds materially to the weight and value of the crop.

The effects of marl in promoting vegetation and in increasing the productions of the soil are unexampled, but it is believed by many that it exerts no beneficial agency in protecting vegetation from the blighting influence of great drought; for during the past severe season some of those who had used it most copiously suffered most from want of moisture.

It would be both interesting and useful, if some intelligent and observing farmers, who apply this valuable mineral extensively, would furnish the result of their observations on its use for publication in the Farmers' Cabinet.

How to save time.

Have a place for every thing, and when you have done using it, return it to its place. This will save much time in hunting after articles which are thrown carelessly aside, and lie you know not where.

For the Farmers' Cabinet.

Peach Trees,—No. 1.

Advice gratuitous is naught,
If merely read, 'tis dearly bought!
Fix but the price, at cent per cent;
'Tis *wisdom's* voice, and *kindly* meant.

Anonymous.

The subscriber has lived many years, has published something like the present before, and as such advice costs nothing, he knows but few who have profited by it; though long experience has convinced him that it is infallible in preserving the peach-tree from injury by *the worm* that destroys the tree by eating the bark off near the root.

I have paid much attention to the natural history of the insect that is so fatal to the peach-tree, and have become familiar with some of its habits: and seeing in the "Farmers' Cabinet" suggestions to guard against its destructive influence, I am willing to give, through the columns of your useful paper, my experience and success in preserving that valuable tree from its enemies, or at least from *one*, the worm at the root.

My first effort was directed to find the *habits* of the insect, the better to guard against its depredations; and I shall relate the process which I took to discover whence it came, and if you should not think it tedious, I shall be sufficiently minute in my relation.

I procured in the spring of the year, say 1800, one hundred and fifty trees about one foot high. I set them out singly in a rich soil in my garden, and in two years I removed them to the situations where they were to stand. I trimmed the superfluous limbs off before I dug them up, and discovered the under side of the tender branches had been stung by some insect the season before, and in the after-growth and run of the sap in August the wound had grown over, leaving a small seam in the bark, and in digging up the trees, found in the mellow ground numerous small white worms, one-third of an inch in length, over the whole nursery, and in paring the bark away in the wounded part of the limb, it appeared clear that they must have dropped like our 17 year locusts, from the wounded limbs. Still pursuing my inquiries, and digging up more trees, I found at the roots of many of them, those little worms fretting the bark which puts out the gum, and formed a more congenial home, without as yet making much wound at the root of the tree; thence I came to the conclusion that some unknown insect, and, as I supposed, some winged insect, was the parent, which, like the locust, by opening the tender bark, had there depo-

ated its egg to hatch and drop to the ground, and instinct directed it to find its way through the surface of the ground to the root of the tree; and that those little worms are the progeny of that winged insect whatever it might be. Wishing further discoveries, I sought a peach-tree which was on the decline, having several worms in it, sawed off that part of the root containing them, placed the root in a pot with moist earth, covered with paper, having pin holes made in it for air. This was done in the spring. Sometime in June following my hired man, who had been privy to all my inquiries, hailed me with assurances that he had taken the peach fly, with his probe so fast in the limb of a peach-tree that he caught him before he could extricate himself. I immediately examined my pot, where the root had been deposited, found two flies had come out of the root but both had died, the envelope of the chrysalis lying by them; yet in size, form, and color, they exactly resembled the one brought by my tenant. There could be no mistake about it, they were identified as part of the same family; the color was similar to the common house-fly, the part behind the wings more than twice the length of the said fly. I then went to my row of peach-trees round my orchard, and elsewhere, found them numerous, say hundreds lighting on the small limbs, and anon flying off again in constant motion, evidently the same kind of insect; but I was surprised to find them in such numbers. I then went to a variety of young trees, as pear, apple, plumb, cherry, &c., but though they abounded among the peach, not one could be found on any of them; this was additional confirmation that my inquiries had issued correctly. I therefore drew this conclusion, that the egg is laid in the tender bark and wood of the young peach-tree by those flies—that it falls to the ground like the egg or larvæ of the locust, it found the root of the tree through the surface of the ground and soon made a lodgment in the bark and gum near the ground, though with feeble powers; it soon becomes of larger size and lives on the bark and sap of the tree.

SAM. JOHNSON.

Buckingham, 15th, 11th mo. 1838.

The Farmer's Creed.

Let this be held the farmer's creed—
For stock, seek out the choicest breed;
In peace and plenty let them feed:
Your land sow with the best of seed;
Let it not dung nor dressing need;
Inclose, plough, reap, with care and speed,
And you will soon be rich indeed.

Morus Multicaulis.

Translated from M. Henry Bourdon's Notes upon the cultivation of the Mulberry in the southern department of France, by KENDERTON SMITH, Esq.

Read before the Philadelphia Society for Promoting Agriculture, November 1838, and published in the Farmers' Cabinet by request of the Society.

It is only a few years since they have commenced the cultivation of the Philippian called the Multicaulis in the south of France.

The propagation of this tree, which has large and fine leaves, has met with great opposition in the south, although they acknowledge the immense advantages which it presents by reason of the facility of producing it from cuttings, the rapidity of its development, and the beauty and excellence of its foliage; yet they have objected that its leaves are very susceptible of being rent by winds and of being struck by rust from fogs or mists, that this tree is extremely sensible to white frosts, and that its too forward vegetation exposes it very much to injury from late frosts. I have however seen in the environs of Lyons, in Vivarais, and in Provence, some very remarkable plantations, some of them new, and others already from five to eight years old, and as a proof of its facility of propagation I will site the cuttings made by M. Audibert, of Tarascon, in the month of June, after the leaves were gathered; these cuttings, which generally succeeded, were at the commencement of October from two to three feet high. I have seen in many localities beautiful standard multicaulis trees giving fifteen to twenty and thirty kilograms* of leaves. At Villerangue there is one, planted fifteen years ago, which I was told produced this year forty kilograms. This method of cultivating the multicaulis by standards, always appeared to me to be essentially contrary to the nature of this tree, which seems to unite in the highest degree all the qualities necessary for its cultivation from stumps in hedge rows or copse, and perhaps the indifference of the south in relation to the mulberry of the Philippians, arises from the mistaken views they entertain as regards its culture.

May we not be permitted to attribute the contradictory opinions which have been circulated in regard to the capacities of the tree, to the introduction of some of those mulberries which M. Henon, director of the departmental nursery of Lyons, distinguished in 1835, as false multicaulis mulberries, and which he says were more liable

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A Kil. is about 2 1-5 lbs. English avoirdupois.

to be injured by frosts than the true multicaulis mulberry, the character and organization of which he describes as did M. Perottet.

These very numerous and different varieties for the most part approach more or less to the white mulberry, and result from their being propagated from seed. This means of reproduction is in fact especially the cause of the diversity of its produce; as to its tendency to reproduce the white mulberry they have sought to explain it by saying that the multicaulis should not be regarded as a new species, but as a variety essentially remarkable amongst the thousand varieties furnished by the seed of the white mulberry. It is without doubt easy to justify such an assertion, founded upon analogies and established facts. I do not say, however, that we are not tempted to reject this explanation, but at least to add a second, when we see united in the same seed the white and the multicaulis mulberry. Does not the idea of crosses naturally present itself to the mind? In the departmental nursery of Lyons, and afterwards at Manosque, (Basse Alps), I was shown very handsome plants, the produce of seeds sown that year, and of cuttings planted seven months previous which were five feet high and were taken from plants produced from seed the previous year. The wood very nearly resembling that of the multicaulis, appeared to have more consistence, and the leaves resembled those of the white grafted mulberry. MM. Audibert, of Tarascon, showed me more than two hundred varieties of the multicaulis trees collected in their nursery, where there were from forty to fifty varieties of the white mulberry. This multiplicity of products, which, if the formation of crosses is admitted, can only be attributed to complex fecundation, produced by the vicinity of fifty varieties of white mulberries, has prevented a general classification; all these varieties possess, but in a different degree, the faculty of reproduction from cutting. It is where the black mulberry prevails that this mode of multiplication is the least successful. We may easily imagine the interest that will be attached to the researches and accurate experiments made upon these numerous varieties to distinguish those which really unite the qualities of the white mulberry with the faculty of reproduction and the rapid vegetation of the multicaulis.

Nevertheless M. Bonafons, in endeavoring to reconcile the detractors of the multicaulis mulberry, the propagation of which he has always advocated, informs us that a graft of the white mulberry being set in a cutting of multicaulis rooted the same year, or even upon a piece of wood seven or eight inches long, cut from the stem of a rooted tree, has communicated to the white mulberry the force and vigor of vegetation of the multicaulis. I have not had an opportunity of seeing the application of this method, but it is within the reach of cultivators, and the advantages which under certain circumstances may be derived from it, are sufficient to induce them to make the trial.

However, as the multicaulis mulberry has not yet been subjected to a regular treatment, and as the south has not yet results well established from experience to offer in regard to its cultivation, it having been more especially propagated at the north, I will not occupy myself longer with it, contenting myself with advising agriculturists properly to appreciate its advantages and disadvantages, taking care however, until better informed, not to have exclusive plantations.

For the Farmers' Cabinet.

J. Libby—Agreeably to a suggestion of one of your correspondents, that every farmer should forward his cogitations for the benefit of the readers of the Cabinet, I have thrown together the following desultory sketches from observations made by myself during the past season, if thee should find aught in them worthy of insertion in thy valuable paper, they are at thy disposal.

Stir the Soil—Sugar Beet—Grapes.

First.—The advantage of frequent and thorough *pulverization of the soil* (by means of the cultivator or other implements) among fallow crops, as a mean of partially averting the evil consequences of a long continued drought, such as the meagre corn, and other after-summer crops of many of our farmers bore evidence to the present year. I know it to be a fact that many persons will not expose the soil in this way during the continuation of dry weather, alleging as a reason that it affords to the heat of the sun greater facilities for absorbing the moisture from the earth, and more quickly operating detrimentally upon the roots contained therein. That this notion is based upon wrong premises I have had abundance of evidence to fully satisfy me. I will merely mention two instances in confirmation which came directly under my own eye. The one was in a field of corn, part of which having neglected to dress at the commencement of the drought, we deferred working, in hopes of previously receiving a rain upon it, until the ground became so compact that it was impossible to introduce a plough or cultivator

in it. It had been equally well tended with the remainder of the field previously, and was clean and clear of weeds;—the difference consisted in one exposing a loose, light and open surface, and the other being slightly encrusted on top by a rain: throughout the dry weather while this presented to the view stunted, earless stocks and curled blades, the other looked and grew finely. The same effect was remarkably manifest in two strips of potatoes; the soil in one was kept continually exposed to the vivifying influence of the atmosphere; the other after receiving a complete cleaning was left alone; the vines on this soon withered, were dried up and killed. We dug the potatoes, and they were not much larger than hulled walnuts; the others retained a lively appearance much longer, and when dug turned out fine large potatoes, although not an average crop.—Now I draw the conclusion, that it is much better during the prevalence of dry weather to keep the ground about tillable crops *well stirred*. I believe the benefit experienced by it, arises from its better adaptation in that state, to attract the moisture, dews, and other depositions from the air, which will tend greatly to supply the deficiency.

Secondly—I would enquire of those who are in the practice of raising the *sugar beet* for stock, whether they are aware that a large quantity of nutriment may be procured from them during their growth, without injury to the root, by stripping off a portion of the under leaves, (which are very succulent and eagerly eaten by cattle or hogs,) many of which would otherwise decay upon the plants.

Thirdly—Are our farmers generally aware how easily and at what a small expense they may obtain a plenty of delicious *eating grapes* for their own use. I have heard, that several attempts have been made to introduce vineyards in this district, but they have mostly failed, as they require too much attention and care in this climate to make them profitable. But this need not deter our agriculturists from having an ample supply for private enjoyment, by availing themselves of some slightly sheltered situation for their culture, the southern side of a house for instance. I have in mind one vine which in one or two years has produced its possessor several bushels of as fine grapes as I would desire to eat; it occupies but little space which would otherwise be turned to no account, requires no care, but trimming the superabundant wood in the spring, (the work of a few minutes,) is of the Catawba species, and is very easily propagated from slips, these should be about six or eight inches long, and about the thickness of a man's little finger. When the vines are trimmed slips may be saved and deposited in a cellar until the approach of warm weather; they should then be set upright with but one bud above the surface of the ground, which should be kept moist; the young vines had better be trained to a stick or pole. If the foregoing remarks are acceptable perhaps I may again contribute to thy columns.

I should be pleased to see in the Cabinet, a list of *pear-trees* adapted to our soil and climate, which would form a succession of this agreeable fruit, and some account of their management and culture.

C. B.

Philadelphia County, 11th mo. 13th.

On the Varieties, Properties, and Classification of Wheat.

[Continued from page 109.]

ON A CHANGE AND CHOICE OF SEED.

It is generally believed that an occasional, some say a frequent, change of seed is indispensable; otherwise, the plant soon becoming familiarized to the soil, loathes it, as it were, and consequently diminishes in produce. I am strongly inclined to believe that this is an erroneous idea; partly owing, not only to negligence in the selection of seed, from the finest of a crop, but also to a want of attention in the arrangement of succession, which I have before spoken of.

It is perfectly true that all plants become tired of one soil, and one manure; they, like the human race, have their appetites and loathings, and a person that would be forced constantly to eat the same sort of food, would not only infallibly sicken of it, but most likely suffer in his health. So it is with the cultivation of wheat, or any other plant. The best cultivator of Lucerne I have ever known, whose practice extended over forty years experience, assured me, that until he adopted the method of giving it fresh food yearly, he never made it produce as he has since done. One year it was dressed with decomposed manure; the next with ashes; the third with salt, and the fourth with lime.

I have applied this principle to wheat—that which is grown on land, manured from the mixon, one year; becomes seed for land prepared with lime, that again becomes seed for land dressed with ashes, then for land dressed with mixed manures, and so on, varying the food as much as possible, hence giving a good variety every chance of finding a new soil on each occasion. It may be objected that such a system could not be continued on a larger farm, where five or six hundred acres of wheat come into rotation: that may be true, to a certain extent; but a little address and judgment, even on

such a scale, by judicious subordination, would enable a farmer to surmount the difficulty, as fifty acres kept in rotation on such a farm, solely for seed corn, even at thirty bushels the acre, would be the required quantity. So on a small farm, where only fifty acres of wheat would be cultivated, five acres skilfully managed in the same way, might prevent the deterioration or degenerating of a variety suited to the soil and climate. It is sometimes difficult to replace a good and suitable variety, though it may have degenerated, as it is called.

Columella was so aware of the importance of procuring the choicest seed, that he observes, "I have this further direction to give, that when the corns are cut down, and brought into the threshing floor, we should even then think of making provision of seed, for the future seed time; for this is what *Celsus* says, where the corn and crop is but small, we must *pick out all the best ears of corn*, and *of them*, lay up our seed separately by itself. On the other hand, when we shall have a more plentiful harvest than ordinary, and a larger grain, whatever part of it is thrashed out must be cleansed with the sieve; and that part of it which, because of its weight and bulk, subsides, and falls to the bottom of the sieve, must always be reserved for seed; for this is of very great advantage, because, unless such care be taken, corns degenerate, though more quickly indeed in moist places, yet they do so also in such as are dry."

This ancient, but most intelligent and accomplished farmer and writer, was thus fully aware of the importance of selecting the finest and choicest wheat for seed, evidently aware also, from the circumstance of his alluding to the heaviest wheat sinking to the bottom of the sieve, that the most farinaceous wheat was the most nutritious, and best fitted for the purpose of nourishing the young plant in its embryo state. Nor can there be a doubt, but that the most plump, well-grown, and perfectly ripe wheat, is the fittest for seed.

It has frequently puzzled me much to imagine, upon what principle some have recommended for seed, a sort of inferior grain, the refuse of a crop, after all the best had been sent to the market. How a principle so entirely contrary to the whole economy of nature,—which usually produces the finest progeny, from the healthiest and most robust parents, the same being improved, or weakened, in proportion to proper or improper nurture and culture,—could for a moment obtain, it is difficult to conceive; but it was merely argued, that because a large quantity of sickly seed was sown, and that a portion of it grew and produced a fair crop, it might be considered safe practice. Even from the finest seed, after five years of experiments, I am persuaded that for a crop, one-tenth of the best grain perishes, or is destroyed by birds, mice, or insects; but from some sorts which look sickly, and were purposely tried, sown singly, grain by grain in 1833, I found that a liver colored variety, which from the appearance of the ear, promised to be highly productive, though the grains were ill-grown, thirty-three grains out of seventy-two died—which induced me to discard it as being too delicate, its grains being poor and lean, though grown on a rich and well-prepared soil. Another variety, also, from poor, ill-fed wheat, lost forty-nine grains out of sixty-two. A sample of golden drop, tolerably well grown, had seven varieties in a handful, and thirty-four of these died, out of seventy-two grains. Whereas from other healthy plump grains of several varieties, only nine, ten, and twelve died, out of seventy-two grains of each variety.

Columella, also, entertained an idea, regarding the degenerating of wheat, which is still entertained by modern farmers, quite erroneously in my opinion; the causes of which, according to my view of the question, will be explained in the succeeding chapter.

In 1834 the "Belle Vue Talavera," was so well grown and plump, that of three rows of seventy-two grains each, not one died: of No. 1 Dantzic, only three to four, in three rows of the same number; and of No. 2, "Album Densum" only eight, from the same number died.

From one hundred and forty-four grains, of a new white spring wheat, a very rare, hardy, and promising variety, only ten died. Hence with both farinaceous and productive habits, I think I am also combining hardy qualities, selected from among forty or fifty sorts, which habits and qualities I am more or less acquainted with, as far as regards this climate.

My general observations lead me to believe, that where wheat appears to grow lean and poor looking, it should be discarded from the locality after a fair trial, say after the third year, as the second, only, might be the result of climate, or the want of being naturalized to the soil.

The first trial should be made from seed of the best quality, if this fails after the third year, it evidently is unsuited to the soil and climate, and a new sort should be introduced.

It must be obvious, that lean and shriveled wheat, is not so likely to nourish the young plant just starting from its embryo state into life, with a mere miserable skin of a parent

to live upon, as the fine rich nutriment to be met with in a plump, round, farinaceous grain, full of meal. As well might a farmer expect to have a fine fat skipping calf from a poor lean cow, fed, or rather starved, on Dartmoor Heath.

ON THE TENDENCY OF WHEAT TO DEGENERATE.

This term "degenerate," is in common use among farmers, from a want of having duly reflected on the subject, and accepting for truth the traditions or sayings which become proverbial from father to son.

If I rightly understand the signification of the term, it should mean that the wheat has changed its nature, it has become of an inferior quality, less productive, and less suited to the soil than when originally sown. Now, having shown the very considerable difference of produce in various varieties,—some producing nearly double what others do; it stands to reason that if a farmer procured what he used to consider a fine sample, apparently tolerably pure—and that a few grains, of a productive but coarse sort, were intermixed with it, say, for the sake of argument, fifty grains in a bushel, on the average, that this variety produced sixty grains to the ear, with an average of eight tillers to each grain; here would be four hundred and eighty grains, the produce of one single ear, multiplied by the *fifty grains* in the bushel, or twenty-four thousand grains in the produce of each bushel, of an inferior sort, in the crop, the following year. The second or third year, if careful attention were omitted in the selection of the seed, from the original sort meant to be produced, the crop would be thus almost *changed*, not *degenerated:* it would be no fault of the superior sort first imported, but wholly the consequence of neglect in not having preserved it pure; for the original sort would remain the same as regards quality, but diminished in quantity. So it will be in a greater or less proportion, with each of these varieties, that lurk in a good crop, which they deteriorate in proportion to their inferiority, either in point of produce of meal or straw. This is the case even among the careful selections which I have made, for in the operations of thrashing, winnowing, or preparing it, by washing, or pickling; with all the care imaginable, it is of so small bulk, that some stray grains, if several sorts are grown on a farm, will invariably lurk, and get into the most pure crop —this I hold under such circumstances to be almost inevitable, but where only one or two good and suitable sorts are cultivated on a farm, mixtures ought to disappear altogether; and the stock continue pure as long as proper attention is paid. This should be done by methodical arrangement; first, by seeing the seed intended to sow down an acre or two, as future stock for a large farm, carefully selected by hand if necessary. That sown by a drill machine, with a double distance between each sowing of the drill, to enable a careful person to reach from each side to the middle of the drill, when the wheat is ripening, to cut off any ears foreign to the crop. A guinea expended in extra labor in this manner, would amply repay the farmer, in the future beauty and produce of his crop.

When the sheaves are tied, I further send a person round them, to see if all strangers to the crop are excluded from it.

All this may appear discouraging, but what success is to be obtained in this, or any other profession, (for I do not hesitate to call farming both a science and a profession,) without mental application, added to the "*sweat of the brow*," in order to learn how to cultivate the soil with proper skill.

A very good farmer in the Lothians sent me a sample of wheat of his own growth—it had been intended for a white wheat, and was called so, but most of the white grains were ill-grown and poor, whereas, a few grains of a red variety, mixed in the sample, were very plump and farinaceous, evidently marking that the degenerated or red sort, as it probably was considered, was that which would have ensured a heavy, well-ripened, and remunerating crop.

I trust that the growing of seed, for particular localities, may become a distinct branch of the agricultural profession. I do not feel envious of those admirable establishments the nursery gardens of the kingdom, which hourly clothe the face of the country with new beauties, and refresh it with delicacies —the result of close, and scientific investigation, extracting, like bees, sweets from every climate under the sun, and naturalizing them to a soil so foreign to many of their habits—yet I do hope to see a species of nurseries for wheat, established in all parts of the empire, where it will be known what sorts of wheat are best suited for its different soils, whether of clay, lime, sand, granite, or other bases.

It must inevitably stand to reason, that the fine white wheat which is grown on a rich fertile loam, suitably retentive of moisture, cannot be the proper sort to be sown on a poor black soil, which of itself is incapable of retaining or attracting moisture.

But it will not be denied, that if a red, or coarse variety, equally productive as to quantity, though perhaps less farinaceous,

could be grown on such a soil, it would be an end greatly to be desired, and of much national importance.

An observation which I made, leads me to believe that such will be the result. In a piece of land which had been ill-prepared, and was poor and out of condition, a crop of white wheat had been sown; it scarcely grew three feet in height—but among it was a plant of fine, tall, rich brown wheat, with a large, round, but rather coarse grain. It proved a highly productive variety. Had I happened to have sown the field with all such, instead of having only had twenty bushels per acre, I should probably have reaped forty.

Surely the attainment of such results ought to be a matter of grave inquiry, as a means of increasing the national wealth. It is not my object, however, to write a treatise on political economy, but I shall not hesitate to point out, what appears to me to be a legitimate and certain mode of augmenting the capital of the kingdom, by the means of husbandry, now in so depreciated a state.

The importance of the exact adaptation of plants or their varieties to particular soils, has lately been hinted at, in other terms it is true, by a medical professor of great talent and research; who has traced the origin of the cholera in India, to improper food, or to the use of ill-grown and vitiated rice. There can be no doubt, that if wheat, unsuited to a particular soil be sown, the chances are that it will not be properly ripened, especially if in a moist or northern climate, where September or October weather may catch it; under such circumstances, the crop must be reaped, thrashed out, and perhaps sold at a low rate, at all events somebody must eat it, so that an unripe, impure, deteriorated aliment is circulated, to the injury of some portion of society; had the seed been such as suited the soil, the contrary might be expected: a well-ripened crop, enabling the farmer to pay his rent; and a wholesome nutriment being brought into the market. Ten or twelve years ago, a beautiful crop was sacrificed in the following manner. It was about the period that a good deal was written and circulated respecting the great advantages to be derived from cutting wheat while the grain was not fully ripened, as a means of considerably increasing the quantity of meal.

It was therefore reaped in an almost green state, while the thumb nail could be pressed through the grain, the consequence was, that it shriveled, and I imagine never dried, for when it was ground into meal, and prepared for baking, the dough would not rise, and the bread it produced was so heavy (absolutely lead-like and indigestible,) that it was unfit for ordinary human stomachs, and nearly the whole crop was given to the pigs.

It will not answer to run into extremes in farming, all beginners should deviate from the usual practice with caution, and commence with small experiments, which when established to be on correct principles, can be extended with safety.

[To be continued.]

To the Editor of the Farmers' Cabinet.

Burnt Clay as a Manure.

Sir,—Much has been said of late in reference to the burning of clay for manure, and in some sections of our county it is practised, I learn, with success. That it may be rendered valuable, and highly so, in certain localities, I firmly believe; but that it would be advisable for our farmers, in regions where calcareous and mineral manures either abound, or are easily and cheaply obtained, I have serious doubts. Yet, inasmuch as it has excited some interest, and as it is advisable for information on all subjects connected with agriculture to be widely disseminated, I take the liberty to present to the readers of the Farmers' Cabinet, in a brief form, the experience of some intelligent men who have attended to the subject. And here I cannot but express my regret that the plan of burning and applying clay as a manure has not been thoroughly carried out in this country. Too many enter upon new experiments with apparently exhaustless zeal, but it all evaporates with the first discouraging circumstance they encounter. They stop short, and the enterprise is generally abandoned in disgust and forever. And not only so, but the persons thus failing in their untimely or ill-directed experiments throw the whole weight of their conversational influence against the thing itself. Now, one great reason to my mind, why so many of our agricultural friends fail in their experiments is, not that they expect too *great*, but too IMMEDIATE results, from their efforts. Disappointment follows, and abandonment of the project in which they are engaged ensues of course. Now no one is better calculated to make experiments than the farmer. He can do it on a small scale, and increase in proportion as the results may justify him in doing so. These are advantages that no farmer should forego—he should test every thing for himself, and hold fast unto that which is best.

The operation of drying and burning clay for manure has been practised in Europe for many years, and more or less in this country for sixty years past; but wherever tried with us it has been abandoned, or fallen into

disuse. COBBETT, whose erratic course is so strongly and universally condemned, tried it with no little success during his sojourn in this country. His principal experiments were made, I think, on Long Island, and are detailed below. LOUDON says that the oldest book in which it is mentioned was published more than a century since. He states that the benefits have been greatly exaggerated—though on clayey soils it is of considerable advantage. The mania for burning clay attained its height in England in 1815; and in a few years thereafter its most strenuous advocates were indisposed to say much on the subject. AITON, in his Farmers' Magazine says: "I regret that the discoverers of florin grass and of the effects of burnt clay, have so far overrated their value. Both are useful and proper to be attended to—the grass to be raised on patches of marshy ground, and used as green food to cattle, and the burnt earth as a *corrector* of the mechanical arrangement of a stubborn clay soil; and I have no doubt that if they had been only recommended for those valuable purposes, they would have been brought into more general use than they yet are, or will be, till the prejudices against them arising from the disappointment of expectations raised high by too flattering descriptions, are removed." The advantages of burnt clay are briefly set forth in the following synopsis, and which embodies the "practical experience" of intelligent men on both sides of the Atlantic.

I. When clay is burnt to a state of ashes (like brick dust) it will so remain, and cannot return to its original state of clay unless by the application of acids. Consequently, says Aiton, an admixture of that with a strong adhesive clay must evidently operate as a powerful manure, by changing the mechanical arrangements of the latter. By this means it is rendered more friable, affording a greater facility to the percolation of redundant moisture, and to the spreading of the roots of vegetables in quest of food. If the clay or earth thus burnt abounds with vegetable fibre, the soot or carbonic matter acquired by the operation, would probably, for one season at least, operate as a stimulus to the growth of plants. Aiton, however, expresses the opinion that as the subsoil is generally used for burning, it is impossible that any considerable quantity of vegetable matter can be found in it.

II. "The *calcareous matter* in the soil is said to be calcined and formed into lime by this process." This argument by many writers is considered more plausible than solid. But while the opponents of this system contend that little or no perceptible effect can be produced when the matter burnt or torrefied is applied as a manure to *other* soils, they admit one principal point, which is, "that some qualities in particular soils, unfavorable to vegetation, may be corrected by burning; and that in some other instances the fire may render the clay more nutritive to plants." Whatever effect may be produced, except that of rendering the soil more friable, must be temporary, and therefore soon run out.

III. A writer in the Farmers' Journal, 1819, says that the *action of burnt clay* is threefold, and may be manifold. "It opens the texture of stubborn clays, gives a drain to the water, spiracles to the air, and affords to the roots facility of penetrating. Clay ashes burnt from turves containing an admixture of vegetable matter, consist in some small proportion of vegetable alkali or potash, a salt which is known to be a good manure. It frequently happens that a stiff cold clay is impregnated with pyrites, a compound of sulphuric acid and iron. Although the chemical attraction between these two bodies is so strong that it is one of the most difficult operations in the arts totally to free iron from sulphur, yet a very moderate heat sublimes a large portion of the sulphur. The iron is then left at liberty to re-absorb a portion of the redundant acid, which is too generally found in these soils, and thereby sweetens the land; and it is probable that the bright red or crimson calx of iron which gives coloring to the ashes when over-burnt is beneficial to vegetation, in the present case, inasmuch, as it is, of itself, one of the happiest aids to fertility. CURWEN notices that clay ashes do not benefit as a *top dressing on grass*, which is in part to be explained by reason that the ashes, when spread on the surface of the grass, cannot exert mechanical action on the soil in the ways enumerated. Neither can the calx of iron come so immediately in contact with the particles of the soil, for the production of any chemical effect, as it would do if the ashes were ploughed in. In short, like many other manures which are laid on the surface, unless it contain something soluble, which may be washed into the ground by rains, it does very little good; and the feeble proportion of vegetable alkali is probably the only soluble matter the ashes contain."

IV. The *salutary effects of fire on soils* is thus described by the late Richard Peters, Esq. "I could give many instances of the great utility of fire in fertilizing land which have passed under my own observation, both recent, and of very old date. I can show numerous spots in fields on which large collections of weeds were burnt twenty years ago, which now exhibit, and have so done ever since the operation, a most extraordinary comparative fertility, in ground, the whole

whereof has been well limed and otherwise manured. Burning heaps of straw I have found efficient. Leaves and other trash from hedge rows, chips and brush, have given fertility to barren spots—most evidently and durably. . . . Having frequently turned the subject in my mind, I have not been able to account for it in a manner satisfactory to myself. The ashes of such light substances soon spend their force. No ashes will so durably evidence fertilizing effects—be they even of wood, coal, or other solid material. It must, therefore, be some unaccountable result, produced on the soil, by the agency of FIRE."—*Memoirs Phila. Agricultural Society*, Vol. III. page 214.

A late work, the Practical Farmer and Gardener, in an interesting article on *Aluminous Earths*, states that some trials have been made in this country of using burnt clay as a manure, and recommends its use for all dry arable lands not inclining to clay. The first step in preparation for burning clay, is to have a large quantity of this clay dug up in spits, and laid to dry in the sun; when pretty well dried you prepare for burning by raising a little pile of dry wood in the shape of a pyramid, say 4 or 5 feet high—round this you build up the dry spits of clay, leaving a hole at the bottom for the entrance of the air, and another at the top for it to pass off. Such, at least, was the method formerly practised, but the modern improvement of retaining the smoke within the mass, as directed by Cobbett, for burning earth, ought to be pursued in the burning of clay. After the fire has been set to the wood you continue digging up fresh clay and piling it around and over the heap, as fast as the fire penetrates the mass, taking care, however, not to pile on so much at once as to extinguish the fire. If there be danger of its becoming extinguished, it may be advisable to make one or more holes in the sides of the heap by running a pole into it. The fresh earth is to be added during pleasure, or until a sufficient quantity is burned. After the heap has cooled it is fit for use, either by mixing with the soil as directed by Mr. Cobbett, for applying burnt earth, of which we will next speak.

"By a late improvement, earths, other than those of clay are successfully converted into good manure by the process of burning. It is effected by retaining the smoke within the mass of earth while in a state of ignition. Mr. Cobbett says he has tried this manure for the Ruta Baga crop, and found it as efficacious as barn dung. His manner of preparing it, and which we believe would also be the best method of preparing burnt clay, is as follows:—

"I make a circle or oblong square. I cut sods and build a wall all round three feet thick and four feet high. I then light a fire in the middle with straw, dry sticks, boughs, and such like matter. I go on making this fire larger and larger, until it extends over the whole bottom of the pit or kiln. I put on roots of trees or any rubbish wood, till there be a good thickness of strong coals, I then put on the *driest* of the clods that I have ploughed up round about, so as to cover all the fire over. The earth thus put in will burn. You will see the smoke coming out of little places here and there. Put more clods wherever the smoke appears. Keep on thus for a day or two. By this time a great mass of fire will be in the inside. And now you may dig out the clay or earth any where round the kiln, and fling it on without ceremony, always taking care to *keep in the smoke*, for if you suffer that to continue coming out at any one place, a hole will soon be made; the main force of the fire will draw to that hole, a blaze, like that of a volcano will rush out, and the fire will be extinguished.

"A very good way is to put your finger into the top of the heap here and there, and if you find the fire *very near*, throw on more earth. Not *too much at a time*, for that weighs too heavily on the fire, and keeps it back; and at first will put it partially out. You keep on thus augmenting the kiln, till you get to the top of the walls, and then you may, if you please, raise the walls, and still go on. No rain will affect the fire, when once it has become strong.

"The principle is to *keep out air*, whether at the top or the sides, and this you are sure to do if you *keep in the smoke*. I burnt, this summer, about thirty wagon loads in one round kiln, and never saw the smoke at all after the first four days. I put in my finger to try whether the fire was near the top, and when I found it approaching I put on more earth. Never was a kiln more completely burnt.

"Now this may be done on the skirt of any wood where the matters are at hand. This method is far preferable to the *above ground* burning in *heaps*, because in the next place, the *smoke escapes there*, which is the finest or best part of the burnt matter. *Soot*, we know well, is more powerful than ashes; and soot is composed of the *grossest parts of the smoke*. That which flies out of the chimney is the best part of all.

In case of a want of wood wherewith to begin the fire, the fire may be lighted precisely as in the case of *paring and burning*. If the kiln be large, the oblong square is the best figure; about *ten feet wide*, because then a man can fling the earth easily over every part. The mode they pursue in Es-

rope, when there is no *wood* at hand, is to make a sort of building in the kiln with turfs, and leave air holes at the corners of the walls till the fire be well begun. But this is tedious work—and is in this country wholly unnecessary. Care must, however, be taken that the fire be well lighted. The matter put in *at first* should be such as is of the lightest description; so that a body of earth on fire may be obtained before it be too heavily loaded. The burning being completed, having got the quantity you want, let the kiln remain. The fire will continue to work until all is ashes. If you want to use the ashes sooner, open the kiln. They will be cold enough to remove in a week."

So says COBBETT.

For the Farmers' Cabinet.

What is the expense of keeping a Horse?

An idle man and a useless horse are a heavy charge on a farm.

What is the annual expense necessarily incurred in keeping a farm-horse? This is a question which it would be interesting and perhaps profitable to have correctly and accurately answered. It is supposed the cost of supporting a horse in decent condition, to fit him for useful labor during the year, is much more than is generally supposed. It is a common opinion that two cows can be kept at the expense of one horse. Is this a fact? Horses are not only useful but absolutely necessary on a farm, yet it is supposed that many more of them are kept than are absolutely necessary for the convenience or profit of many farmers.

Some may suppose that if they pay no money for food for a horse that he don't cost much; but this may be a great mistake, for hay and grass and corn and oats are as valuable as money to a farmer.

Fancy horses may be compared to dandies among the human species, they perform less useful labour, and consume more provender, and require more attention at the toilette than the real working classes; if so, they ought to be reduced to the smallest possible number that will answer for the fancy work of a farm. There is much economy in keeping such only as are well adapted to the labor which is required by their owner, and no more even of them than will accomplish the work of the farm in the best manner possible.

If some of your intelligent patrons would take the trouble of anwering the query at the head of this article for the next number of the Cabinet, it would oblige an

EX-FARMER.

For the Farmers' Cabinet.

Fattening Hogs.

A hog is a selfish animal, and wherever selfishness constitutes the predominant part of character, there is little regard paid to the rights, interests, or feelings of others. This is remarkably the case amongst the swinish multitude, each one of whom seeks his own gratification, regardless of the welfare of his fellows. In a community of hogs we often see this disposition carried out so far as to be highly prejudicial to those who possess less physical strength, and where numbers are fed at a common trough the jealousy which is felt by them, induces them to bolt their food without chewing, like the passengers on board a steamboat or the boarders of a public hotel. This being the case, unless their food is well prepared by cooking previously to its being presented to them, dyspepsia or indigestion will be likely to result, and much of the food will be passed off without adding any thing to the fatness or weight of the carcase. A friend of mine in order to obviate this difficulty, and to remove the jealousy from the minds of his hogs during meal-times, has tried the experiment of placing some of them in separate apartments, which are so narrow as not to admit of their turning round; they can move freely forward to the trough where each has his meal separate, or they can recede back from it, and lie down and sleep in comfort in their narrow abode, but further than this they are restricted in their movements.—Their food is all boiled or steamed, and served to them separately, and it is surprising to see with what quietness and composure they eat; there is no hurry or bustle, no squeeling or biting or pushing, no spilling, no wasting or dirtying the food, but each one goes to his meal quietly, without haste; they chew their food thoroughly, seeming to be careful not to swallow it without due mastication, and when done eating, they step back a short distance, lie down and go to sleep. The success attendant on this mode of feeding has been such as to justify recommending it to the attention of farmers generally, believing it to be the most economical mode of feeding hogs which has yet been adopted.

I forward this for the Cabinet, not wishing it to occupy the place of more important matter. I am aware the same plan has been tried before; but the above represents a case now in progress with an intelligent farmer, who is a constant reader of your valuable Journal.

A. B.

Those who praise or condemn by wholesale often commit great acts of injustice

For the Farmers' Cabinet.

Operations of Lime.

Vegetable and animal substances before they can become food for, and enter into the composition of plants, must undergo decomposition and become dissolved in water. Heat and moisture are the great agents of decomposition, and in order to effect it, they must be applied in a medium degree, for too high or too low a temperature, too much or too little moisture, are alike inimical to the progress of fermentation and decomposition. The climate of this country is such during the warm season, as to carry it on with great rapidity; and in the southern states the almost total absence of frost enables it to progress during the whole year, while in the more northern parts of the country decomposition is checked or suspended, at least six months out of twelve. It has been observed, that timber exposed to the elements in the south, will decay two years earlier than the same kind of timber equally exposed in the middle or northern states; and the same causes constantly operating, must destroy the efficacy of manure in much less time in southern than in more northern latitudes, for the solution being produced with more rapidity, must be carried away by the frequent showers before it can be taken up by the roots of plants. Hence it is supposed that lime, which is a powerful antiseptic, tending to impede or check decomposition, would be found even more beneficial to the south than it is to the north. The dry, warm, sandy lands of New Jersey, where vegetable manure is thoroughly decomposed and carried away in a single summer, have derived the greatest advantage from the application of lime, in consequence of its preserving the manure from so rapid a dissolution, and thereby extending the fertilizing influence of it for a longer time. A cold wet soil, although it may contain a superabundance of vegetable matter, is never found to be benefited by the application of lime, and the reason of it no doubt is, that it is too wet and cold to favor a sufficient degree of decomposition to furnish the requisite food for plants without it, and under such circumstances to apply such a powerful antiseptic to it as lime, tends still further to prevent the necessary decay of the vegetable materials contained in the soil, to furnish the proper nutriment for the crop.

Lime, it is believed, always produces the greatest effect on dry and warm land, by checking the tendency to too rapid decomposition, and not by a tendency to promote fermentation as some have supposed.

In a recent edition of Sir Humphrey Davy's Elements of Agricultural Chemistry, with notes by his brother, John Davy, which he states relate chiefly to facts ascertained since 1826, he says,

"The manner in which lime acts in agriculture, requires further and minute investigation, and is a most important subject for inquiry. From the experiments I have made, I have satisfied myself that it arrests equally vinous and putrid fermentation, and that in close vessels it may be used for preserving both animal and vegetable substances."

These thoughts are presented through the medium of the Cabinet, in order that those who are annually engaged in applying lime to their farms, may note their opinions on the subject, and furnish them for publication, so that a consistent, intelligible theory of the operations of lime may be arrived at. X.

For the Farmers' Cabinet

Important to Farmers.

The drought of last season having destroyed or greatly injured the second crop of hay, many farmers have but a short supply for their stock the coming winter. Every means, therefore, of using this with the greatest economy should be resorted to. It has been abundantly proved, both in Europe and this country, that cutting all long feed for stock, is a gain of from one-third to one-half of the cost of keeping on long or uncut food. The great objection to this *mode* of economizing, has heretofore been the severe or expensive labor attending it; and it is to remove this impression that I trouble your readers with these remarks. This difficulty no longer exists, since the introduction of that *ne plus ultra* of agricultural machines, Green's Straw-cutter, which may almost be said to be self-acting, so small is the force required to work it. On this point I may mention that the committee on machinery of the Highland Agricultural Society of Scotland, having carefully tried the "Yankee notion," say in their Report, that "it will cut *three times more* than the best machines of the common sorts, and ☞ with *less force!* that one person driving the machine, will cut with ease five hundredweight of hay or straw per hour." To the truth of this averment I am ready to bear full testimony from my own experience. Now, with the ascertained power to convert *three tons of hay into four*, by the investment of only thirty or forty dollars, it is to be hoped that no farmer will allow himself to be cornered for want of sustenance for his kine. If the hay, after being cut up, be sprinkled with brine, it will be the more valuable, and be

eaten up the cleaner from the trough. Try it.

UTILITY.

We perceive the machine is still advertised for sale by Mr. I. I. Hitchcock, at Landreth's, 63 Chestnut-street, and at Hirst & Dreer's new and elegant establishment, No. 97, same street. We are "true believers" in the economy of cutting all long feed for stock, and we constantly hear Green's instrument spoken of in the highest terms of praise by those who have used it.

ED. FAR. CAB.

For the Farmers' Cabinet.

Sowing Grass Seeds.

It is a bad system to mix seeds of different plants before sowing them, in order to have fewer casts. It is better to sow each sort separately, as the trouble of going several times over the ground is nothing compared to the benefit of having each sort equally distributed.

Grass seeds cannot well be sown too plentifully, and no economy less deserving the name can possibly exist, than the being sparing of grass seeds. The seeds of grain may easily be sown too thickly, but with respect to those of grass, it is scarcely capable of occurring. The smaller the stem, the more acceptable it is to cattle; and when the seeds of some grasses are thinly scattered, their stems tend, as it is called, to wood, and the crop is liable to be infested with weeds. Some think that if ground is well manured, good grasses will come in of themselves. Perhaps so; but how long will it be before that happens? Clean seed, and that which is known to be suitable to the soil, should always be sown. For though grasses will gradually come in, no great crop is to be expected the first year, unless it be a crop of rank and useless weeds. And he that misses the first year's crop, loses much, as the longer the land lies, the more compact or bound it will become, and produce the smaller crops.

Every farmer should carefully examine his fields that are coming into grass for next summer's mowing, and carefully note all the bald spots, where, by the lodging of grain or from any other cause, the grass roots have either not taken or been destroyed. On all such spots grass seeds should be applied at as early a period in the spring as possible. Failures of this sort generally are found where the soil is strongest, and if grass seed is not resown, there will be an abundant supply of weeds to annoy the careless farmer.

For the Farmers' Cabinet

Orchard Grass.

This grass is worthy of being cultivated on account of its uncommon luxuriance. Horses, cows, and sheep, eat it readily, and it is valuable on account of its excellent after-feed. It affords an abundant crop, springs early, and grows fast, makes excellent hay, and yields abundance of seed, which is not easily shaken out. It is a hardy grass, found highly useful in moist loamy soils, and thriving under the shade of trees. It comes early, is soon mature, and continues green until late in the season, as clover does. If intended for fodder, it should be cut while young and tender.

Read before the Philadelphia Agricultural Society, Nov. 21, 1838, and ordered to be published in the Farmers' Cabinet.

George Henry Walker.

The name of this gentleman, by whose sudden death (which took place at his residence, Longford, in Philadelphia Co., on the 7th of Sept. last, in the 50th year of his age) the cause of agricultural improvement has lost a valuable and efficient friend, deserves honorable mention; and the following brief notice has been suggested as a slight tribute to the memory of an enlightened farmer and most worthy man.

The pupil of some of the most celebrated agriculturists of the old country, Mr. Walker came hither and settled amongst us about twenty years ago, bringing with him no ordinary degree of intelligence and information concerning his favorite profession. He purchased a farm of about a hundred acres in Philadelphia County, where, notwithstanding the discouragements which always obstruct the progress of agricultural reform, he illustrated the value of those improvements which his extensive knowledge and excellent judgment showed him to be desirable and necessary. He was the first to call attention to the relations existing between the laws of subsistence, occupation, and production, and to apply them as a principle, to the improvement of agriculture. He was mainly instrumental in introducing a judicious system of root culture. He demonstrated the importance of the green-crop system, of a better method of preparing and applying manures, and of an alteration in the rotation of crops. The utility of his improvements was shown by their results, and it may truly be said of him, that he made more than two ears of corn grow where only one grew before. He occasionally had under his charge young men of intelligence and character, who enjoyed the

advantages of his rich agricultural wisdom and experience, imbibed his ardor, and who, upon farms of their own, are now carrying out his excellent principles of culture, and promising fair to perpetuate and extend the influence of his system.

Strictly upright in his dealings, Mr. Walker was especially noted for the great reserve of his manners. He was not quick to seek the friendship of others; to give or demand confidence. But this peculiarity was owing to no native moroseness of temper. It had unfortunately been his lot to have his confidence in men severely tried, at that period of life when the heart is open to the strongest impressions. At the time when all England was agitated by the revolutionary proceedings of France, the father of Mr. Walker, a highly respectable merchant and very distinguished man, in Manchester, was put on trial for his life, charged with seditious and treasonable practices, upon the testimony of a miserable creature, the probable tool of others, whose falsehood was made so glaringly manifest in open court, that coincidently with the honorable acquittal of the accused, the judge committed the solitary witness against him for perjury. This treatment of a beloved parent, made an ineffaceable impression upon the mind of the son, and alienated his affections, if not altogether from his native country, at least from the government, which could permit such gross practices against the peace and honor of an upright and honorable citizen. It brought him to this country; it chilled his confidence in his fellow-men; but the kind affections, which refused to diffuse themselves widely, were not dried up, nor did they fail to flow out in acts of kindness towards those whose worth he had the opportunity of learning. At his own fireside, in the domestic circle, in the company of good books, which he loved to share with his family by reading aloud, he found not only relaxation, but his greatest earthly happiness. There the loss of an affectionate and devoted friend will long be severely felt.

To Preserve Eggs.

Eggs have often been preserved sound and good for months by putting them up with common wood ashes, in a box or cask, so as to exclude the air. It is said they do best when placed on end.

The hasty divulgers of news generally bring on themselves the trouble of contradicting it.

For the Farmers' Cabinet.

Speculation in Morus Multicaulis.

I should be sorry to occupy, unprofitably to its readers, a single page of the Farmers' Cabinet—a work which increases in interest monthly—but as the subject is one really important and interesting to the community at large, and to the agriculturist particularly, and as some parts of the reply of "Multicaulis" to my former communication seem to require further notice, I will offer a few observations as briefly as possible.

He must have read my remarks through *distorting spectacles*, or he would not have supposed that they were directed *against the culture* and *manufacture of silk in this country*. They were intended to check, if possible, that wild speculation which the writer believes may eventually injure seriously the progress and establishment of the silk business, as well as many of those who engage in the speculation. In respect then to the importance of "silk culture," your correspondents do not materially differ in opinion; but on some other points we are far from agreeing.

In regard to what properly constitutes speculation, what its tendency is, the nature of its effects on individuals and the public interest, and the consequences which result from it to any particular branch of industry in which it may have prevailed, I will not, at present, make any further remarks. But as "Multicaulis" asserts that I am in error, and that "the present value of the trees does not arise so much from a spirit of speculation or gambling in the purchaser, as from a fair estimate of their present intrinsic value;" and that according to his "cyphering" "the multicaulis will probably maintain its present, if not a higher value, until it is generally distributed throughout the country;" a period in his apprehension, somewhat remote, I wish to state a few facts, and to "cypher" a little more, that our readers may be the better qualified to decide who is in error.

I have been informed by a gentleman in this city, who has disposed of many thousands of the morus multicaulis, that the present price is twenty-five cents per foot, and that they generally sell from $1.00 to $1.50 each, although some have been sold for more than $2.00. Taking five feet as the average height to which the tree will grow in one summer, in a good soil, say *wheat land*, the average price is $1.25 per tree. On an acre of such land about 30,000 trees may be raised in a season, having the rows four feet apart, and the trees four inches apart in the rows. I have been told by an experienced cultivator, that from one tree he can raise

twenty in a single summer: from 1500 trees, then, 30,000 may be raised. With an outlay, therefore, of $1875, and the very trifling expense of cultivating an acre of ground, $35,000 may be realized in six months!! O, ye farmers who have been toiling and toiling all your lives long, in raising wheat, corn, and potatoes, and clearing your $10, $20, or $30 per acre annually! O, ye nursery-men, who plant an apple-seed, and patiently and carefully cultivate the seedling for three years, then ingraft it, and prune and trim it for three or four years more, and at the end of your seven years' labor and care, sell it for ten cents; can you believe that the "present price" of the multicaulis arises from a "fair estimate of their present intrinsic value?" Will any gentleman of this city who has a farm cultivated; can any farmer believe that this "present intrinsic value" will be maintained to a "period somewhat remote," or "for some years to come at least?" Why, at such a price, mulberry trees would soon cover the whole length and breadth of the land, and instead of bread and potatoes, we should have only the "delicious cream" to subsist on, which the newspapers tell us is prepared in France from the silkworm, after it has ceased spinning.

I can state from undoubted authority, that in silk-growing France, the multicaulis could be purchased last August—only four months ago—at five cents per tree; how is it that their "intrinsic value" in a country where they are actually used, is so very small?

"Multicaulis" does not deny that some speculation has been carried on in mulberry trees, and it may be possible, notwithstanding he does not think so, that this has raised the price a *little*. I could cite many instances in which something very like speculation or gambling has almost doubled the price in a short time; one may suffice. A friend of mine purchased a lot of multicaulis last summer, authorized an agent to sell them, and was absent a few days from home. On his return he found his trees had been sold at an advance of one thousand dollars, and I understand the same lot of trees has changed hands four times since, rapidly increasing in "intrinsic value" each time; the trees remaining, of course, in the ground *unused*.

Can "Multicaulis" show by his "cyphering" that the actual use of the morus multicaulis in feeding silkworms, and the realized profits from the culture of silk during the past season, have raised the price of the trees from twenty-five cents each—at which price they were offered last spring—or 12½ cents which was the price a year before, to $1.25?

But it is so notorious that a wild and wonderful speculation has been carried on in this city, during which the price of these trees has been more than quadrupled, that *here* no proof of it is needed. A few facts, however, connected with it may be new to distant readers of the Cabinet, and perhaps prevent some of them from being deceived. They may be assured that Philadelphia is the great focus of the grand speculation; the market to which the multicaulis are brought from every quarter. Our newspapers have contained advertisements from the north, south, east and west, offering to send trees here. Paragraphs may be found in distant newspapers from all directions, stating the high prices at which the multicaulis are sold here, and recommending the cultivation of them in their respective neighborhoods for this market. Even last spring large quantities of them were brought here from Florida, as the sale advertisements stated. Notwithstanding all this, we are here told by the mulberry speculators, both in advertisements and in conversation, that a vast market is opening in the south and west, and that incalculable numbers will be sent there, and this is held out as a strong inducement to purchase and cultivate them here. Speculators from Philadelphia and neighboring places, have scoured the country as rapidly as steam could carry them, from lake Ontario to the far south, (and I understand some have even gone to France, and others sent orders there,) to purchase morus multicaulis for this market. How preposterous is it to represent that vast markets are opening in the very places from whence we obtain our supply.

In the next place let us have facts in relation to the *hardy* character of the multicaulis. Its namesake tells us "it is constitutionally hardy, indeed more so than most trees known to us—that it will bear to be buried in the earth for the six winter months, and in the spring when dug up, be a vigorous and healthy tree." Now, I believe that "most trees known to us" may be buried and dug up in like manner and condition. But how was it discovered that the multicaulis is thus remarkably hardy? simply by finding it necessary to bury it during the "six winter months" to preserve its life! "Multicaulis" states that "it will bear the rigors of our winters without injury, when three years old." Suppose then—for I like example better than precept, and "cyphering" better than assertion—that a farmer has one of his fields, say ten acres, filled with mulberry trees, comprising probably two hundred

thousand; he must dig these up and bury them for three successive autumns, and replant them for three successive springs, before they will bear the rigor of our winter. This operation would be, I imagine, a large item in the list of expenses. But we are told that a tree, yes, *one* multicaulis tree, in the garden of D. Maupay has not been injured by the severities of the three last very severe winters, although unprotected. The principal part of that garden has, I believe, a remarkably warm southern exposure; and if the tree stands in that part, I am not surprised to hear it has survived. Even if it does not stand in a favorable situation, the circumstance of "Multicaulis" adducing the instance of a single tree to prove the hardy character of the variety, when, if it had really been proved hardy, he might have mentioned millions, conveys to my mind the idea that the *millions* are not hardy, and the *one* is a remarkable exception.

Notwithstanding the "offset" then, I still assert that "it is well known that the whole of the tree that is above the ground is frequently if not generally killed in this latitude by the frost," and that "it is a universal practice amongst those who cultivate the multicaulis for sale, to dig them up in the autumn, and secure them snug and warm in cellars or other places."

Although I consider the culture of silk as a desirable and important object, I am not so mulberry mad as to think that it will be so vastly lucrative as to bestow great riches on all who engage in it. I believe that as far as it may be engaged in, or if it should become extensively and firmly established, the profits, as in every other branch of industry, will be only a fair remuneration for time, labor, and attention. As to the business being sustained by premiums very long, that is out of the question. "Multicaulis" says "heavy duties would be burdensome to the public," and I ask him from whence is the money derived that is paid in premiums, if not from the pockets of the public?

He tells us that our people "must have time to learn the nature and habits of the worm; must be made acquainted, by actual observation, with the best system of rearing and feeding; must have time to erect their cocooneries, and to be informed of the best fixtures for feeding and spinning upon," and then states that "upon these subjects we are yet very much in the dark." Is it not very strange, and may we not be "surprised" that an "intelligent people should, under these disadvantages, and in the dark too, with a capital necessarily twenty-five or thirty times greater than is required to conduct the business in other countries, presume to enter into competition with them? I say a capital so much greater would be required in this country, if the plan which "Multicaulis," as I understand him, recommends, were adopted; that is, that every silk-grower should buy all the trees he wants to use, for he evidently repudiates the plan I recommended, of every one raising his own trees from a small number. As long, however, as the raising of mulberry trees is incomparably more profitable than raising the silkworm, "Multicaulis'" plan will not be adopted, and the latter employment will continue to be used merely as an adjunct to the grand speculation.

Time will determine the question whether the present price of the multicaulis is or is not owing to a spirit of speculation and gambling, and I shall await its decision in full confidence that it will confirm my sentiments. Already I perceive indications of a rapid fall in their "intrinsic value," or as I would call it, their gambling price. I have heard a person offer to enter into contracts to furnish the multicaulis trees next autumn for ten cents each; and it is said a southern cultivator offers to furnish them at that time for five cents each. There are advertisements in our city newspapers, one headed, "a rare chance for Speculators"—offering to cultivate them next season for two cents each. Now if a farmer can raise these trees for two cents each and be well paid for his land and labor, of which there cannot be a doubt, how in the name of common sense, can their "present intrinsic value" be one dollar and twenty-five cents, or even one dollar?

I hope our farmers will coolly and patiently examine the subject before they venture their honestly-earned money in this wild and hazardous speculation, a speculation which "seduces industry from its regular and salutary occupations, by the hope of abundance without labor." I predict that within two years they will find what I said in my former communication, viz: "that the morus multicaulis are so easily and rapidly propagated, that if no speculation existed, and the demand was confined, as it ought to be, to the silk-grower, they could be purchased at one-fiftieth of their present prices" to be the

Truth.

Diet.

Premature debility and old age speedily overtake all who indulge in the luxuries of the table. Water is the beverage which nature intended for our use, or in other words which it is most healthful to use, for every unnecessary stimulus abridges life.

To the Editor of the Farmers' Cabinet.

Enquiries relative to the Mulberry.

Sir—Can any of your subscribers or correspondents inform me how many mulberry trees it takes to supply a million of silk-worms; how old the trees should be before they are fit to feed from, and how many such trees will grow on an acre of ground? I am one amongst the many who wish to embark in the silk business, judging from present appearances that it will be, in the course of a very few years, as much of a staple business as the cotton growing is at the present time, but a much more profitable one. I have had the views of several on the subject, but wishing to go into it largely, am desirous of getting the best information on the subject. I have been informed that to feed a million of worms I must have at least ten thousand trees, which will require about one acre of ground; but, if a person wishes to enter the silk business, it would be hardly worth his while to turn his whole attention to a million of worms, for the trouble would be almost the same as ten times the number. Now I should suppose that those who enter the business would at least like to raise from twenty to fifty million; therefore, if I wish to raise twenty million, I must first raise two hundred thousand trees, which would occupy twenty acres of ground. This appears at first to be, to one who has never raised worms, a wild calculation; but, wild as it is, I believe it is nevertheless true; but, how does it pay? why it pays *better* than any crop that can be raised on a farm. Twenty millions of worms will make at least six thousand pounds of raw silk when wound, which is worth four dollars per pound, which would be $24,000; the cost for raising would be about $2.50 per pound, which would be $15,000, leaving a balance of $9,000 clear profit, which is much more than I could ever realize on a farm of two hundred acres. This calculation, I admit, is several years in advance of the times, owing to the scarcity of trees, for suppose, for instance, that in each of our twenty-six states there should be but twenty companies or individuals that should enter into the business, (and this I think but a very reasonable supposition) how many trees would they require to feed but 20,000,000 each, of worms? At 10,000 each it would require for each state four million, and for the twenty-six states one hundred and four million. Again, how many trees have been raised in the United States the present year? From the inquiries I have made I have as yet been unable to find more than two million; not sufficient to supply a single state. Again, from mismanagement, how many will be lost during the present winter? Should none be lost, (which would be wondrous strange,) how many would the whole two million raise? If they average ten each, (which they will not) they would amount to twenty million; a small supply for one-fifth of the states. I give you my ideas, based upon the inquiries that I have made, and hope that some of your readers may enlighten me more upon the subject, and convince some of your correspondents that, although I wish to enter into the silk business and raise mulberry trees, I am no gambler. A Subscriber.

Bucks, Dec. 4th, 1838

Things to be Remembered.

Winter is coming;—the long files of wild geese on their way to the "sunny south," long since foretold its approach; and the fleecy flakes have already heralded its advent. Ready, or unready, it will soon be upon us; and much of our prosperity as farmers, and our comfort as individuals, is depending on the preparation we are making, or have made, to meet it. The man has little pretension to the character of a good farmer, who has not already made ample provision for his flocks and his herds; and prepared in-door and out, for the wants and comforts of his family; such will not be offended if reminded of things by them already anticipated, while the heedless and the negligent need continual prompting to keep up with the months.

It should be remembered that an animal in high order the first of December is already half wintered. The quantity of food required to keep such an animal in good heart through the winter, and bring him out smart and active in the spring, is much less than when he is poor in the fall, and the danger of loss is reduced to the lowest possible rate. See then that your stock is in good condition.

It should be remembered that an animal provided with a good warm stable or bed, will, to winter equally well, require only three-fourths of the food necessary for one that runs at large and is exposed to the severity of the weather. Never undertake to fat an animal, without first making it comfortable. Much is annually lost by neglecting this precaution.

It should be remembered that where grain is fed to stock, cooking it will cause it to afford at least one-fourth more nourishment than if given raw. Grinding aids its nutritive effect materially; but cooking, as by steaming, still more. Thus it has been found by actual experiment, that half a bushel of corn, ground into meal and made into pudding, is equal in effect to three pecks, fed to swine in the usual way, a saving of no

small moment where numbers of hogs are fed. In feeding potatoes, the saving by steaming or boiling is equal to one-half.—Cobs and corn-stalks, made fine and steamed, will keep a horse or cow in better condition than the best hay; and these things are usually wasted.

It should be remembered that it is miserable policy to burn green wood; yet how many there are who rarely use any other. Did you ever calculate the quantity of dry wood it takes to drive off in steam the water from a green oak or beech stick?—if you have, you can estimate the direct loss there is in the use of unseasoned wood. Add to this the vexations consequent on loss of time, temper, and comfort, and you will hesitate before you conclude to pass the winter by drawing and burning one green stick at a time. Wood cut in October will not season as well as if cut in the early part of the year; but the winds will carry off some of the moisture, and the wood will be much better than if direct from the forest or stump. No wood, however, should lie long after being cut into fire wood, without being placed under cover.

It should be remembered that the winter is the farmer's time to store his mind with useful knowledge; and his books and papers should be provided accordingly. In the winter, if he has calculated his affairs aright, the farmer is prepared to enjoy himself, and the society of his friends; to study books relating to his business, or those on subjects of general interest; and to attend to the education and welfare of his children. No farmer should be without a shelf of well selected books, among which should be found some of the best works on agriculture, such as the manuals of Chaptal or Davy; and no farmer who values his profession, or wishes to conduct his operations understandingly and profitably, will fail of having at command one or more of the agricultural periodicals of the country.

It should be remembered that ergot will produce disease in animals, and he who, *knowing* this fact, undertakes to winter his cattle on this substance, or on hay that contains it in large quantities, must expect little sympathy, if he finds his stock of cattle sadly decreased in the spring by the hoof-ail.

It should be remembered that all animals require shelter, and none perhaps more so than sheep; yet the barbarous and irrational custom prevails of giving them the "cold side of the barn," and allowing them to endure the severest storms without protection of any kind. Is it wonderful then that multitudes of these valuable animals perish yearly; or that farmers pay dearly for their inattention in this respect?

It should be remembered, that care, prudence, and economy, are necessary to success in this life in any department, and in none more so than in that of the farmer. Riches are of no value, any farther than they furnish the means of benefiting ourselves and others. The greater part of the men who have attained competence and wealth in this country have done it by their own unaided exertions; and the men who have made themselves the most distinguished in the annals of our country, have come up from the ranks of the people, supported only by their industry, integrity and talents. A farmer has no right to be ignorant, he has no right to be idle;—industry and intelligence take a bond of fate, and insure success.—The favors of fortune are open to all; but no matter of what nature they may be, they can only be won by intelligent and well-directed toil.—*Genesee Farmer.*

For the Farmers' Cabinet.

Insects vs. Birds.

Mr. Cabinet,—I am a regular reader of your journal, and while I am a constant operator with my *hands*, permit me somewhat of a similar privilege with the *head*. From several articles which have appeared in your paper—articles, the composition and style of which reflect credit on their authors, I have been almost led to inquire, "For what were all things made?" Were they all created for some useful purpose in the great economy of nature—or, while one part was destined for a wise and benevolent purpose, was another formed for ravage and destruction only, without rendering a corresponding compensation in the great operations of nature? True, we are so much the creatures of self, that whatever appears to militate against our interest, we are ever willing to decry at first view, as being not only useless, but to set it down as destructive in its consequences, without stopping to inquire for a moment—was it formed for any useful purpose? Though I am an advocate that man, who is endowed with intellectual powers while the inferior orders of animated nature are guided by instinct alone;—man, to whom is given dominion over the "beasts of the field, and the birds of the air," should use every honest and honorable means for the melioration of his condition, and the promotion of his interests, yet I have no doubt but that interest is sometimes retarded by the means employed for its advancement. Are the birds of the air, whether graniverous or insectiverous, the untutored friends of man, while the tiny insect that sports in the summer's sun, and which nature has taught th

wonderful instinct to burrow in the earth for its preservation during, and protection from, the rigors of winter, is nought but a depredator and destructor, meriting the acquaintance and friendship of man no further than for him to seek its utter annihilation? To broach the secret, while I was this day, Cincinnatus like, following the plough, these reflections forced themselves upon my mind. I observed, as any person may do, (particularly in the spring of the year,) the ground after the furrows were turned over, to be pierced with almost innumerable perforations. Now as every effect must have a cause, the first inquiry was, from what source proceeded these perforations. Since it is a well known fact that the different species of beetles, with numerous other species of insects, burrow in the earth to deposit their eggs, or hybernate themselves, to a depth to be beyond the effects of the frost—were not these the passages wrought by those workmen of nature in their egress from their winter abode? Most assuredly they were. Might not these perforations tend materially to the fertilization of the soil by the more readily admitting the air and the heat of the sun, and absorbing the rain more freely, which carries with it the decaying and putrefying matter from the surface to the absorbent fibres of the roots of plants? Such at least were my reflections. Now, while we desire to exercise a fostering care towards one portion of created beings, as the friends of man, might we not, with much propriety, at least stop to inquire, before we declare a war of extermination upon another part of them, were they formed for any useful purpose? or rather, do not all created beings, tending to promote the interest of man, require some compensation at his hand for their services rendered? Yea,

The birds of heaven shall vindicate their grain.

Will some of your scientific observing correspondents favor us with their views upon the subject? ENTO.

For the Farmers' Cabinet.

On Feeding Stock.

Little and often, says experience. In feeding all kinds of domestic animals particular care should be taken to avoid placing too much food before them at a time, for it is observed that food which has been long *blowed* upon, is never relished afterwards, and will only be eaten from the most pressing necessity.

It is well known that the exhalations from the lungs of all animals contain great impurities, which have been thrown off from the blood, and these coming in contact with the food renders it unpleasant if not injurious, and the instinct of animals prompt them to reject all poisonous substances offered them as food. The true maxim is,

LITTLE AND OFTEN.

Never crowd the trough with food, or the rack with hay, to avoid the trouble of soon replenishing them again, if you wish your stock to thrive and do well; and particularly if you desire to economize your winter store of provender. Lazy boys always fill the trough and rack the fullest, in order to save the trouble of doing it soon again. R.

Fragments.—No. III.

"Gather up the fragments, that nothing be lost."

THE CLOSE OF THE YEAR.

The approach of the close of the year should remind us of the close of our lives; and as no person dies the sooner for being prepared, it would be well for us all, at least once a year, to review the past and make preparation for the future. Examine your debits and credits, liquidate your bills and accounts that have been running on with mechanics and others; make crooked things straight, and those that are obscure, clear and plain; ascertain how you stand with the world, and every body in it; and then seriously consider whether it might not be best under all circumstances, to make your will whilst in health, and not postpone so important and serious a business till you are prostrated on a bed of sickness.

TIME.

Economize time, it is the stuff life is made of, therefore suffer no portion of it to be wasted in vain and frivolous pursuits, which neither promote our own true interest or happiness, nor the sum of human enjoyment.

HABIT.

If you desire the success of your children in life, take great care of the habits they acquire during their minority. Many can trace their prosperity or adversity to the habits and impressions engrafted upon them at an early period of their lives.

KINDNESS.

Kindness, and a true regard for the feelings and interest of those who are under our control in the capacity of hirelings and domestics, is generally reciprocated by faithfulness and devotion to our interests, and is the best safeguard to fidelity.

REFORM.

If you wish to reform the world, begin by reforming yourself, and then devote your attention to forming and improving the habits,

manners, and principles of the children and youth who are next to come on to the stage of action.

MONEY.

Some have money and have trouble about it;
Some have none and are troubled without it.

IMPORTANCE OF WILLS.

Those who are so thoughtful and considerate as to make their wills and to settle their affairs whilst in health, save themselves much anxious solicitude when afflicted with disease; for a bed of sickness is not well adapted for such a purpose. No person's life is shortened by being prepared for death; but many have had their strength exhausted, and their minds drawn from more solemn engagements, when prostrated by disease, by efforts to make a final settlement of their worldly concerns; and it has often under such circumstances been effected in a very imperfect and unsatisfactory manner, giving rise to dissension and litigation. Every person should endeavor so to manage his business concerns as to be prepared to live in comfort, and then to live so as always to be prepared to die; for there is nothing more uncertain than the continuance of the life of any individual; and of any large number of persons born about the same time it is found by careful observation for long periods, that they fall off by death with surprising regularity, a small per centage of them dropping annually into the silent grave till they are all gone.

LAZINESS

The paroxysms of laziness are always increased in frequency and force by full feeding. The most appropriate and effectual remedy for it is a low diet. Providence has decreed that poverty and want shall always be within call of the indolent and lazy.

PRINCIPLES.

There is no such thing as a *new* principle; all principles were impressed by the hand of Omnipotence in the beginning of time. A person may discover or invent a new application of a principle, but the principle itself must be as old as the creation of matter.

UNFINISHED WORK.

Children or young people should not be permitted to acquire a habit of beginning things, and then leave them in an unfinished state. Many have found great difficulty in overcoming this pernicious habit in after life.

CONVENIENCE AND ECONOMY.

It should not be forgetten that convenience and the economy of time are often the result of attention to the arrangement of things apparently of little importance.

EARLY INSTRUCTION.

To instil into children a love of finery, and to pamper their appetites in early life, and when they have grown up to complain of their being fops and gluttons, savors much of inconsistency. Solomon said, "Train up a child in the way he should go."

ORDER.

Let every thing be done in order and in the right season, and you will never be inclined to deny the truth that "There is a time for all things."

It is a vain thing to help those who won't help themselves.

Those who suffer their grounds to be seeded with weeds permit thieves to be partakers of their substance.

Useful knowledge can have no enemies except the ignorant; it cherishes youth, delights the aged, is an ornament in prosperity, and yields comfort in adversity.

He that would make a real progress in knowledge, must dedicate his age, as well as his youth, at the altar of truth.

It is a common fault to be never satisfied with our fortune, nor dissatisfied with our understanding.

Hope is a flatterer, but the most upright of all parasites, for she frequents the poor man's hut, as well as the mansions of the rich.

For the Farmers' Cabinet.

Origin of eating Goose on Michaelmas Day,

Being the feast of St. Michael the archangel, held on the 29th of September.

Queen Elizabeth, on her way to Tilbury fort, on the 29th of September, 1589, dined at the ancient seat of Sir N. Umfreville, near that place; and as British Bess had much rather dine on a high seasoned and substantial dish than on a simple fricassee or ragout, the knight thought proper to provide a brace of fine geese, to suit the palate of his royal guest. After the queen had dined heartily, she asked for a half-pint bumper of burgundy, and drank "Destruction to the Spanish Armada." She had but that moment returned the glass to the knight, who had done the honors of the table, when the news came (as if the queen had been possessed of the spirit of prophecy) that the Spanish fleet had been destroyed by a storm. She immediately took another bumper, in order to digest the goose and good news; and was so much pleased with the event, that every year after, on that day, she had the above excellent dish served up.

The court made it a custom, and the people the fashion ever since.

The above is furnished for the Farmers' Cabinet, in consequence of an enquiry being made of the writer during the past autumn, by a farmer, for a reason of the great desire of a number of old fashioned people who had emigrated from England to procure geese against the 29th of September. The above is the true solution of the question; and hereafter those who have good geese to sell, will always be likely to obtain a fair price for them, by sending them to market a few days before this anniversary. O.

Wear of Carriage Wheels.

It has been calculated by an engineer of eminence, that every four-horse coach deposits 12 lbs. of iron in every 100 miles of its journey, and that consequently, assuming the number of such coaches passing daily between London and Birmingham alone to be 20, the weight of iron deposited during every transit exceeds 240 lbs. These results, it is stated, are not conjectural, but derived from investigations applied to the horse-shoe and the tire of the wheel—in the first instance, previously to use; and in the second, after the wear and tear of the road had rendered them useless; and they have been found, it is added, as to every ton weight of iron so tried, nearly uniform.

Hoof-ail.

To the Editor of the Farmers' Cabinet.

Sir,—I have just seen a number of the "Farmer and Gardener" of Baltimore, dated 19th June last, which contains an article on the "Hoof-ail" of cattle, and copied from the Genesee Farmer, upon which I will make a few remarks.

The writer of the article, John B. Bowers, dates from Ledyard, and ascribes the loss of the hoofs in three cows, to their having been fed for eight or nine days on spear grass, (I suppose our green grass, *poa viridis*,)* affected with ergot. The conjecture is well founded, as you may be assured by referring to the 5th vol. of the Memoirs of the "*Philadelphia Society for Promoting Agriculture*," p. 196, where you will see a paper of mine on the subject, which I think will leave no room to doubt as to the cause of the disease. It is a curious fact that the ergot of rye, if ground into meal with sound rye, when made into bread and eaten, produces mortification in the lower extremities in France. See Memoirs of the same Society, vol. 3d, Appendix, p. 5. JAMES MEASE.

Chestnut-street,
October 6, 1838.

* See Domestic Encyclopædia, article, Grass.

On the Hoof Disease, from eating hay affected with Ergot. By James Mease, M. D.

In the year 1803, the late JOSEPH COOPER, of New Jersey, informed me, that he had observed the hay made of the natural green grass, or spear-grass, (*poa viridis*) growing on his fine meadows, on Petty's Island, made by banking out the Delaware, to be occasionally affected with a black spear, about one-fourth or half an inch in length, somewhat resembling the ergot in rye, and that cattle eating such hay became affected with a disease in their hoofs, causing them sometimes to drop off. He ascribed the morbid production in the grass, to neglect in supplying it with water from the river, by means of sluices, during a dry season. Upon my mentioning the facts soon after, to the late William Rush of Philadelphia, an extensive grazier, he confirmed them from his own observations at Blooming Grove, near Gray's Court, in the state of New York, in the winter succeeding the very dry summer of the year 1733. The hay was the produce of a bog meadow, it is presumed, therefore, that it was made from the same natural grass that grew in the meadows of Joseph Cooper.

Some years after, Mr. W. T. WOODMAN, of Tredyffrin township, Chester county, Pennsylvania, communicated to me an account, in the following letter, of a similar disease, and from a like cause, among his father's cattle.

Sir,—Having observed the remark in the Port Folio for May, 1815, in the review of the third volume of the Memoirs of the Philadelphia Agricultural Society, that "as yet, in America, we have never heard of any human person falling a victim to the ergot, nor indeed is it satisfactorily ascertained that it has ever been injurious to our animals," I think proper to communicate to you an account of a disease, which, in 1802 or 1803, prevailed in this neighborhood, amongst milk cows particularly; but which also affected other cattle and horses. You will perceive that it was analagous to the one supposed to be occasioned by ergot.

For my part I am entirely ignorant of the cause, but still I am unwilling to ascribe it to ergot, (with which rye in this neighborhood is more or less affected every year,) for this reason, that milk-cows, which are never fed with rye by our farmers or butter-makers, exhibited more violent symptoms than oxen or horses.

The farmers attributed the disease to a peculiar mildew, which sometimes affects the grass on the bottom meadows of a small stream, the basin of which is very extensive, and very luxuriant, and entirely appropriated to meadow land and suffered to lie under natural grass No timothy or other grass seeds have ever been sown on it, to my knowledge.

The cattle affected did not appear to lose their appetite, and while they ate heartily of hay or other food, became daily more and more lean, manifesting great uneasiness, occasioned most probably by violent itching. Their hair in many places fell off, or was rubbed off by the animal, in striving to scratch itself. After these symptoms had continued for some time, one or both hind feet became sore, and the hoofs loose, at which period some of the animals began to grow better. Others lost their hoofs and part of their legs. Three of my father's cows lost both of their hind feet, and some others in the neighborhood were equally as bad. The legs began by drying and growing much smaller from the hoof to halfway between the fetlock and hock; at which point it appeared as if a string of twine were tied very tight round the leg. Above this part the flesh was to all appearance in perfect health; the lower part was hard, black, and offensive. When the lower part became quite dry, and little else than bone, it separated and fell off, after which the animals lived and ate heartily, hobbling along on the remaining stumps. They even began to grow fat. Their health seemed perfect. They would no doubt have lived long in this state, and were killed only from motives of compassion.

One cow belonging to my father, which had lost only one of her hind feet, and that at the first joint above the foot, bore a very strong vigorous calf, which lived and did well. The cow also afforded as much milk after, as before her misfortune, and was pastured on the same

grass to which her disease was attributed when in a state of hay.

I think the disease was never known but one season. The first symptom of it was observable in February, and it reached its crisis about the middle of May. Should this communication lead to any further observations on the nature and cause of the disease, I shall be much pleased, and they may be of great service to the agriculturist. Should the disease ever again make its appearance, I shall be more particular in my observations.

I remain, very respectfully,

Wm. T. Woodman.

P. S. It should be observed, that though we have every year more or less of the ergot, the quantity of it is never considerable. I think there is seldom more than one pint to a hundred bushels of rye.

Different remedies were tried, but none of them afforded any relief.

Being desirous to ascertain whether the disease of the grass to which Mr. W. referred, had grown in meadows that had been deprived of their usual supply of water, I addressed a letter to him in reference to this point, and received the following answer.

Tredyffrin, June 10th, 1815.

Sir,—Your favor of the 30th ult. came to hand the 4th inst. Since the receipt of it, I have made numerous inquiries, for the purpose of obtaining additional information respecting the disease, (of which I communicated an account,) and on the season preceding its prevalence &c.; but I regret to inform you, that farmers in general are so deficient in observation, and so entirely out of the practice of recording facts, that I have not been able satisfactorily to ascertain, whether the season, in which the "injurious hay was made," was a dry one or not.

However, my father informs me, that as nearly as he can recollect, about that period, the ditch which conveyed water to his meadow, became so filled with accumulations of mud and other matter, as to render the supply very imperfect. As a deficiency of watering appears to be the cause of the unwholesome qualities of the hay, it is highly probable the injurious hay was made during the season that water was wanting. But shortly after this time, the death of my grandfather in a great measure excluded my father from the benefit of the water. The original plantation being divided into two farms, and that of my father lying farther down the stream, the water of the artificial course is exhausted before it reaches his land. It should however be remarked, that since that period he mows his grass while it is very young, and before the seeds are touched by the "smutty affection." Indeed, the farmers generally, in this neighborhood, since their cattle were affected with the disease, are careful to mow much earlier than they did formerly.

I am strongly induced to believe that Mr. Cooper ascribes the disease to the proper cause; for I have been correctly informed, that a load of the injurious hay was sold to —— Rogers, who at that time kept the Buck Tavern, in Second-street, whose cow, in consequence of feeding on it, was affected with a disease of a similar nature.

Your friend, &c.

W. T. Woodman.

The disease prevailed to a great extent in Orange county, New York, in the year 1820, and is very well and minutely described by Dr. Arnell, corresponding secretary of the Agricultural Society of that county.* The facts detailed by him leave no doubt of the deaths of numerous cattle in his vicinity being caused by their eating hay made from some grass that was affected with the species of ergot, observed in the produce of the meadows before mentioned, for he expressly mentions that the spear-grass grew in the meadows, in the towns of Wallkill and Blooming Grove, where the disease prevailed, and in a bog-meadow soil. Dr. A. remarks, that, "the hay was cut in June, or beginning of July, immediately before harvest: that only cattle in good condition suffered from eating the diseased hay, the poor and meagre escaping." The means of prevention, pointed out by Dr. Arnell, are similar to that judiciously recommended by Mr. Woodman, viz. to cut the grass early, before the ergot forms; or, if it be found in the grass, to defer cutting it until late, when experience proves that it may be safely used; for Dr. A. remarks, that "the ergot then becomes dry, and shriveled, without any of the flour, or vegeto-animal matter, which it usually contains." But the hay made from such late made grass must be of little value, because Dr. A. says truly, that, "this spear-grass is so early, that if left to stand until the usual time of mowing meadows, it loses all its succulent and nutritious properties." This agrees with our experience, with respect to the spear-grass of Pennsylvania, where it ripens next in order to the early *anthoxanthum odoratum*, or sweet-scented meadow-grass. Still, however, it may be useful, by answering one purpose of food in all animals; to stimulate by distention, and to add to the stock of barnyard manure. The various remedies tried to cure the disease in New York, are enumerated by Dr. Arnell. Those that succeeded were:

1. Poultices of soap, rye-meal, and salt, to the legs and feet.

2. A wash of beef-brine, composed of saltpetre, and common salt, applied several times a day, and after washing and rubbing the feet with the *bitter-sweet* ointment.* Of the animals thus treated, one only lost its hoofs.

In the treatment of the disease, the first object to be attended to, is to remove the cause producing it. This is to be effected by drenches of castor-oil, or sweet-oil and molasses and water warmed, to which may be added, if found necessary, after the failure to operate of the first dose, half a pound of glauber salts, dissolved in warm water. During the operation of the drench, corn-meal, rye, or oatmeal, mixed with a large proportion of warm water, and a handful of common salt to every bucket of it, should be freely given. The use of hay free from ergot is as obviously indispensable. A handful of salt should be given every day to promote digestion, and give tone to the system. The local applications must be of a stimulating nature, to rouse the activity of the circulation and of the absorbents, and to enable the part laboring under a deficiency of vital energy, to resume its healthy functions, or to throw off the disease. Fish or beef-brine will answer as well as any, but they should be well rubbed on the feet and legs, for friction greatly tends to assist in restoring the health of the parts. To prevent the appearance of the ergot in the grass, care should be taken, when practicable, to supply the meadows with water in dry seasons.

Albany Plough Boy, vol. 3, p. 44.

Lime as a Manure for Potatoes.

Some things have already been said and done on the subject of lime in raising potatoes. The experience of the friend whose name is attached to the statement below, goes to recommend at least an experiment. Will not the quality of potatoes be improved by the use of lime, as well as the quantity increased?

Waterford, January 1, 1838.

"Respecting the use of lime in raising potatoes, I can make no accurate statement—as I was not at home when my workmen commenced digging those that were limed; but as near as I can calculate, I obtained something like 100 bushels more for making use of about six bushels of slacked lime, in the following manner: I had about a half pint of lime placed in the hill, and had the potatoes dropped on it, and pressed down gently with the feet, before covering. I was led to try the experiment by seeing the effect produced by some lime that had been used in a tannery, being put into the hills of some potatoes.—*Ver. Tel.*

John Ide.

* Bitter-sweet, or woody night shade, (*solanum dulcamara*,) a well-known medical plant; long used in Europe. It is questionable whether from this external remedy any benefit was derived in the case of the cattle, except from the effects of the friction used in its application.

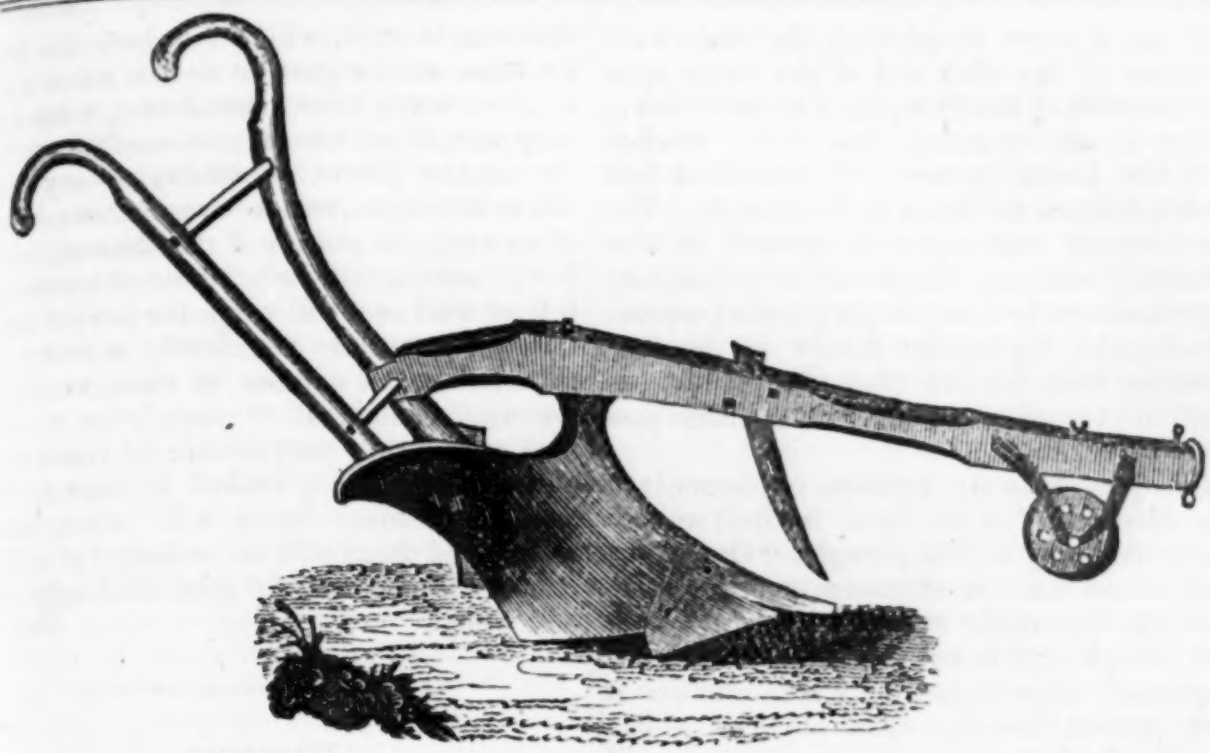

Fig. 27.

Prouty and Mears's Cast Iron Plough.

Improvement in the Plough is a subject of more importance to the agricultural community, perhaps, than any other. The objects desirable to be obtained are superiority of work, saving to the farmers in time, in repairs, in power of draught, and in the rapidity of performing work. A plough should be strong, durable, cheap, and work easy. We have heard with great pleasure a suggestion that it is the intention of the Massachusetts Agricultural Society to appoint a committee, who shall institute enquiries as to the value of the various ploughs now in use, and to suggest improvements which in their opinion will be valuable. Such an enquiry will be of invaluable advantage not only to the farmers of Massachusetts, but throughout the United States. There are men connected with that Society who are well qualified for the task, and will perform it faithfully and thoroughly.

Through all the various improvements and alterations which have been made in the construction of the plough, the uniform practice has been to raise or set the landside on a right angle to, or perpendicular with, the plane of the base, over which the beam has been placed on an acute angle with the line of the landside, carrying the forward end towards the furrow about three inches from a continued line of the landside, to incline the plough to land, or retain its proper width of furrow. The effect has been an irregular, unsteady, struggling motion, which effect is increased as the plough is shortened, and the furrow-slice, being cut and raised with a square edge, is very liable, as it falls over, to rest upon the furrow last turned and not shut in level. Ploughs made of cast iron are necessarily shorter than when made of wood or sheet iron, to prevent their being too heavy and cumbersome, and late improvements in agriculture and the practical use and good effects of tilling the ground with short cast iron ploughs, having brought them into general use, the necessity of adopting some principle, if possible, to the plough to run more uniformly level and steady, and at the same time to form the furrow-slice into such shape as to ensure its closing and shutting in level, has been seriously felt.

The principle adopted by Prouty and Mears in the construction of their plough, is to set the landside on an acute angle with the plane of the base, so that the beam is laid on a line parallel to, and continuous with, the line of the landside, and so far over the furrow as to give the plough a sufficient inclination to land, thus causing a straight forward and uniform motion, and the furrow-slice being cut in the form of an oblique-angled parallelogram—*or a board with feather edges*—falls in and shuts more readily and uniformly with the furrow last turned, leaving the land when ploughed in the best form for the after tillage, and by covering all stubble and green crop completely under, and leaving the surface level, light and friable, fits it for the production of good crops, requiring less strength of team to draw the plough, and less effort of the ploughman to govern it.

The head or top of the landside being broad, and transversely parallel with the head of the base and extended back from the bolt which fastens the beam, so as to make a bearing for the beam to rest upon, serves as a guide for the workmen to lay the beam by,

and as a brace to prevent the downward pressure of the after end of the beam upon the landside of the plough. The point being under a rock or stump, and being notched into the beam, protects the standard bolt which fastens the beam to the plough. The mould-board and share is formed in that gradually winding shape which is found by experience to be best adapted to the purpose, turning and laying the furrow in the best possible form for the after tillage, the production of good crops, and with the least possible resistance.

The judges on Agricultural Implements at the Mechanics' Fair held in Boston last September, say of this plough: "One of the Committee who is extensively engaged in farming, has made some experiments with this plough, and is satisfied that it combines important improvements which render it more perfect than any other plough that has come under his observation, and that it will be found on trial to realize all the recommendations of its proprietor.—*Yankee Farmer.*

Specimens of the plough may be seen at the office of the Farmers' Cabinet, where we will take pleasure in giving any explanation desired by those who do not fully understand the above description.

[Prouty and Mears's patent centre draught cast iron plough, ten different sizes, suited to all the different purposes of farming on all kinds of land. About two thousand of these ploughs have been taken into use since April, 1836, and are highly recommended for the perfection of their work—their steady, even, straight-forward movement, ease of draught and guidance, and their strength and durability.—Also, various other ploughs, of the most approved patterns, wholesale and retail, by David Prouty & Co., No. 19 and 20 North Market Street, Boston.—All orders promptly attended to.]

For the Farmers' Cabinet.

Nest-Eggs of Chalk.

If you can't save much, save a little.

Those to whom the charge is committed of collecting the eggs from the hens' nests, are always instructed to let a nest-egg remain, so that the nest may not be deserted. This is very proper, as otherwise the hen would incline to make a new nest at each period of laying; but sometimes an egg that has long performed that office, is taken in mistake, and a fresh one left in its place; no great harm may arise from this, unless it should have become rotten, and in that case, when the cook gets hold of it, to say the least of it, it gives rise to unpleasant feelings, and sometimes charges of fraud. The nest-egg is always lost, either by being spoiled, or frozen in winter; and when eggs sell for three cents each, which has been the price for some weeks past, it is not worth while to throw away even a small sum, when by a very simple process it can easily be saved, by cutting pieces of chalk, or any other white substance, into a tolerable resemblance of an egg, and putting it into the nest, where it will answer all the purposes of a nest-egg, full as well as a real egg; the hen not being found to scrutinize sufficiently to detect the false token. A number of these should be procured, sufficient to supply one to each nest, where they may remain for years, without danger of being sucked by dogs or rats, and the hardest frosts will never injure them; and there will be no danger of selling them in the market for good fresh eggs laid last week.

Ova.

Enquiries.

What is the best cement, plastering, or coloring that can be given to external brick walls for city or country houses? If a cement more durable than mortar or plastering is known, does it admit of receiving different fancy colors? and what will be the cost per square yard; and where does the person reside who will contract to put such cement on? What is the best method known among our builders and mechanics of protecting north-east walls or exposures, and generally of keeping stone and brick houses dry? Nothing can be more important, particularly in the country, where so many houses are exposed, than to ascertain the best means of keeping them secured from damp, and of making the mortar or cement adhere against all the changes of our variable climate. If any of your subscribers can give us the valuable results of their experience, they would be conferring a favor on a number of your readers, improve the cheerful aspect of our farm houses, and render essential service to the health and comfort of many farmers.

National Silk Convention,

Held at Baltimore, Dec. 11th, 1838.

Among the important matters of interest acted upon in this first convention of Silk Growers in the U. S. are the following—the establishment of a National Silk Society; a monthly National Silk Journal, to be conducted by the society, and edited, for the present, by Jno. S. Skinner, Esq.

The convention unamimously resolved, from the facts presented to it, that silk

could be raised to profit and advantage in this country, for all domestic purposes, and as a valuable article of commercial export.

A resolution also passed that body unanimously according thanks to all the pioneers in the silk business in the U. S., and particularly to Gideon B. Smith, of Baltimore, for his untiring zeal and long efforts in this cause. The passage of this resolution fixed at once the complimentary proposition of Mr. Ed. Ruffin, of the Farmers' Register, that the silk growers of the country should give a certain per centage of their profits, and present Mr. Smith with a farm. In the evening after the passage of the above resolution, two thousand dollars were at once subscribed towards this purpose—alike honorable to the mover, to Mr. Smith, to the members of the convention, and to Mr. Ruffin, who first suggested it.

We learn that the first No. of the Silk Journal will be out some time in January, and that it will contain the journal and proceedings of this interesting convention. More than 200 delegates were present; among them were judges, lawyers, physicians, divines, and many of the most intelligent and able men of our country. Judge Comstock of Connecticut was President of the Convention, and Dr. Arnold Naudain of Delaware has been elected President of the National Society, the next convention of which will be held in Washington, December, 1839.

From the New England Farmer.

Rohan Potato.

Mr. Joseph Breck,—

Dear Sir,—Agreeably to your request, I give you the result of my observation and experience in regard to the Rohan potato, which I have grown for three years. For the table I consider it only second rate, compared with the Chenango; in all other respects I think that it is destined to hold a very conspicuous rank, and consequently to be extensively cultivated.

I am not aware that for productiveness it has any competitor. In the year 1836 I had four potatoes sent me from France. The product from these the present year was nineteen bushels, the largest weighed a pound and a half; they were grown in a field with other varieties, and no extraordinary pains bestowed upon them, either in relation to the culture or the quantity or quality of the manure. Coarse stable manure was used, a forkful to each hill. The land was of middling good quality, a part of it quite dry, and the crops suffered severely from the long drought. They should be planted early, by the 1st of May. If not convenient to plant by that time, I should recommend burying them in a warm place to accelerate their sprouting, which was the course I pursued the present year; or if they could be put into a hot-bed and sprouted, it would probably be a better way; they should, however, be planted out before the sprouts become so long as to be in danger of breaking off in removing them. I have not cut them for planting excepting the first year. In 1837, in consequence of illness, I did not have an opportunity of giving them a fair trial, not being able to give my personal attention to them. They were planted in rows, and dropped three or four inches apart in the row on the north side of a high fence, without any manure excepting some ditch mud. The product was only a bushel and a half, and none of them grew very large. I think it would be better to cut the large ones, especially till they become more plenty. I have no doubt I should have raised a number of bushels more had I adopted that method, notwithstanding, from the causes above mentioned, the last year's produce was small.

It is said, and I believe with truth, that the large ones are never hollow, whereas the large ones of other varieties are.

They are harvested with great facility, one man dug 12 bushels in 4½ hours; the proportion of small ones was less than one bushel in nine, and they would hardly have been considered *small* the present year for any other variety.

I will mention only one more good quality which entitles it to consideration, viz., its being very solid, more so, I think, than any other variety which attains so large size that I am acquainted with.

Respectfully yours,

E. M. Richards.

Dedham, Nov. 8th, 1838.

Remarks.—In addition to what Mr. Richards has stated respecting the Rohan potato, we would state our experience, and lay before our readers the result of our own experiment this year. From the statements made by a number of individuals, who had a few pounds of us in the spring, we were in hopes to have given a more flattering account of this potato than we are enabled to do. The produce has not been so great as we expected; but in comparison with other varieties it has done well. The St. Helena and other varieties planted, have not paid the expense of digging, and with the same cultivation which was bestowed upon the Rohan. We are of the opinion that we did not get two bushels for one planted. We planted 59lbs. of Rohan potatoes in hills, four feet by

three apart, and manured with good coarse manure. The potatoes were cut in small pieces of two or three eyes each, and three pieces planted in a hill. No extra pains were taken with them. The produce was 790lbs. Considering the complete failure of every other variety of potato on the place, we think the result, upon the whole, a good one, although we fondly anticipated a crop of 40 or 50 bushels. We have had them cooked in a variety of ways; we cannot say they were very fine; as good, perhaps, as any other sort of our own raising this year; but then it should be known that we have not had even a St. Helena or any other potato that was fit for the table, the produce of our farm, the present season. We believe it will prove a valuable potato for stock, but not for the table.

A small lot of the Rohan potatoes have been left on sale at the office of the Farmers' Cabinet.

Columbian Horticultural Society.

The meeting of Saturday last was one of peculiar interest. A letter was received through Messrs. Gales and Seaton, from John Hornlitz, Esq. Swedish Consul at St. Ubes, who, at the request of Mr. J. F. Torlade d'Azambuga, in Lisbon, transmitted to the Society a sealed box containing a parcel of onion seed, which was received and distributed for cultivation. The Society is proud to perceive that its usefulness is known and appreciated at so great a distance from us.

Joshua Peirce presented "two heads of grain resembling barley," the accidental growth in his garden, which, he says, is not cultivated in this part of the country, and may be *speltz*.

A communication was received from "Marquis Cosimo Ridolfi," of Mileto, in Tuscany, under cover of a very polite letter from Richard Henry Wilde, Esq. desiring to open a correspondence with the Society, and an interchange of such seeds, &c. as might be mutually advantageous. The Corresponding Secretary was instructed to open such correpondence, and a package of seeds was ordered to be put up and transmitted by the first opportunity. The Marquis was unanimously elected a corresponding member of this Society, as was also Mr. John Horlitz, of St. Ubes.

The Secretary of State presented a large and valuable collection of seeds, received by him from the hands of a messenger of the state department, who has just returned from Guatimala. The thanks of the Society were voted to the Secretary for his extensive presents, and the seeds will be distributed at the next meeting, the 8th inst.

J. F. Callan exhibited an enormous Rohan Potato, and an ear of Thorburn's China or Tree Corn.

Pigs and Piggeries.

The improvements which are annually taking place in agriculture, are seen and felt as much in the attention that is now paid to the rearing and fattening of good farm stock, as in any thing.

We are pleased to see that the hog comes in for a share of this attention, and there seems to be at this moment a particular enquiry throughout the whole Union, what breed is the best, and how can they be best and most profitably managed?

The increased culture of roots, enables those who raise large quantities of them to multiply the tenants of the stye, inasmuch as they are enabled to feed them and keep them in a healthy growing state at a cheaper rate in many regions, by feeding them with these, than they can by grain. The hog seems to be a sort of *omnivorous* animal, that is like his friend, protector, murderer and devourer, man, he can eat almost any thing; but the food which appears to be most congenial to him, is roots, nuts, and seeds, or grains.

That roots were designed to enter largely into his diet, is plainly indicated by the formation of his *snout* and his habits of using it. Give him a chance and he will soon demonstrate to you that he not only knows where to find them, but how to dispose of them.

They are not so well calculated to fatten him as they are to give him health and strength—to keep him alive and active; but they are a very useful ingredient in the fattening process, and when combined with grain, may enter largely into his diet while preparing him for slaughter.

Fruits also, are very grateful to his palate, and apples are now coming very generally into use, as an article of food for the swine of the farm. Cooking his food, whatever it may be, has been found by experience to be a great improvement. Hence any one who may be desirous of rearing and fattening pork to the best advantage, should prepare a piggery or building, devoted exclusively for this business. The style and fashion of this building need not be very splendid, though every one may consult his own taste and means, in regard to it. Three requisites, however, should be attended to, viz:—It should be convenient—it should be warm—it should be tight and dry. The size should

be according to the number that you wish to keep. As a general rule in building or enclosing, a circle will take the least stuff, and a square the next less quantity, and a parallelogram more than either. For instance, a circle twenty feet in diameter, will require nearly sixty-three feet of fence or boards to enclose it. A square twenty feet each way, will require eighty feet; this will contain a little more area than the circle; but a parallelogram which shall contain as much area as the square, (400 feet,) say forty feet long and ten feet wide, will require one hundred feet to enclose it.

A circle is somewhat difficult to construct, but a square is very easy. Suppose you erect a building twenty feet square, and have your pens on the outside—three of the sides will give you space enough to accommodate and feed thirty swine. You can have your wood, steamers, boilers, and vats, in the twenty feet room, and feed them all without going out of the room, by having a lid or trap door to lift up and give you a chance to the troughs. If you can have it placed on the side of a hill where water can be obtained easily, and have a cellar dug into the hill, the floor of which shall be on a level with the floor of your boiling room, it will be very convenient, but if not, a cellar below may be made in the usual manner, and a granary in the chamber above.

Some years ago there was a communication published in the American Farmer, from Mr. Ingersol, of Roxbury, and subsequently in the Farmer and Gardener, respecting the management of a piggery, which gives the most systematic and methodical manner of managing swine that we have any where seen, and we shall publish it soon for the benefit of some of our readers, who we know are seeking information on this subject.—*Maine Farmer.*

Leached Ashes for Manure.

In passing through many towns in the eastern section of this state, we recollect having repeatedly seen potash manufactories placed immediately over streams; and on inquiring the reason for there being thus situated, were told that it was for the convenience of getting rid of the leached ashes by throwing them into the stream and letting them float away. In the immediate vicinity of these establishments, you will frequently find that kind of soil which would be most essentially benefited by an application of leached ashes, and if farmers would haul them on to their land they might increase their crops fifty per cent. In some instances we have known farmers who did not live two miles from an establishment, where thousands of bushels of leached ashes were floated "down stream" every spring, to buy plaster for manure, and pay six dollars per ton for it, and haul it nearly forty miles, when they might had the ashes for hauling.

It is said that ashes lose but a small portion of that property which affords nourishment to plants, by leaching; hence they are nearly as good for farmers after their alkali has been extracted as before, and for some kinds of soils they are as good, ton for ton, as plaster.

We do hope that farmers in the vicinity of these establishments, will wake up to a sense of their interest, and not suffer this wasteful, slovenly practice any longer to go on. It is no wonder that times are hard and that provisions are scarce, so long as a course of economy of this kind is pursued. It is directly calculated to produce scarcity and hard times. Three-fourths, if not seven-eighths, of the farmers in our state, might raise double the amount of crops they do, upon the same ground they cultivate, by collecting every thing within their reach that will make manure, and applying it to their land. The only way that times can be made easy, is by producing more and consuming less, and these may be done by one-half, if farmers will only come to the work with spirit and energy. If there is a muck-hole on your premises, take its contents to your compost heap—if there is a tanner in your vicinity, collect all the scrapings of hides and every thing he makes that will increase your compost heap; if a shoemaker, collect all the scrids of leather that he sweeps out at his door—and see that not a gill of liquid or an ounce of any substance is thrown from your house, that will enrich your compost heap, that does not go to it. In short, a farmer should guard his manure heap with as much care and solicitude as he does his flour or meat barrel, for on this his success mainly depends.—*Ib.*

Hints to Farmers.

Never feed potatoes to stock without boiling or steaming them, as this increases their nutritive qualities.

Never burn all dry wood in your fire-places, nor even use a fire-place when you can get a stove.

Cut your trees for rails in February, as they are most durable.

Never dew-rot your flax, unless you wish to render it worthless.

Never select your seed from the crib, but from the stalk.

To Subscribers—Cause of the Delay.

In our last we briefly referred to a temporary delay in issuing that number of the Cabinet. The delay was considerably extended by an occurrence over which we had no control. The work was stereotyped, but when ready for the press a fire occurred in the printing office, which was nearly destroyed; and in consequence, that number was considerably delayed. This unavoidable circumstance has also prevented the appearance of the present number on the day of publication. The Cabinet may hereafter be expected with its usual punctuality.

The report of the Chester and Delaware County Agricultural Society in our next. The Corresponding Secretary is requested to furnish us with a list of the premiums awarded at the meeting.

Quantity of rain which has fallen in each month since January 1, 1838.

	Inches.
1st month,	2.20
2d month,	2.19
3d month,	3.17
4th month,	3.58
5th month,	3.57
6th month,	6.60
7th month,	2.37
8th month,	2.78
9th month,	9.51
10th month,	4.89
11th month,	3.35

Philadelphia, Dec. 1, 1838.

The *Washington City Silk Company* is said to be in a flourishing condition. The right spirit is abroad. The officers elected for the ensuing year are of the right stamp. Dr. Thomas P. Jones, President, David Saunders, Vice-president: Michael Nourse, Treasurer; John F. Callan, Secretary. J. W. Hand, Henry Stone, F. Howard, Joshua Peirce, D. A. Hall, Jonathan Guest, Andrew Rothwell, Managers.

A Farmer.

Wanted—An *industrious*, capable farmer—one who understands the duties of the *farm-yard*, as well as the labors of the *field*. To a pains-taking, competent person, a respectable salary will be given, or a share in the proceeds, as an equivalent.

The farmer required by the advertiser is not merely a laborer who can plough, sow, &c., &c., but one who can do all these *well*, and is also qualified to direct others in their work, and to carry out all of the operations required on a respectable farming establishment.

The applicant may be either with or without a family—the only requisites required are *capability* and *character*, but these must be unquestionable.

Applications, with references and recommendations, will be received at this office until the 1st of April next.

Philadelphia, Dec. 4th, 1838.

Chinese Corn, Rohan Potatoes.

We are requested to say that the above celebrated articles may be obtained, genuine, at Hirst & Dreer's, No. 97 Chestnut street; also the *Dutton*, *Early Canada*, and Baden Corns.

The Philadelphia Society for Promoting Agriculture, at their meeting in November, awarded to James Gowen, Esq. a premium for the best field of Indian corn viewed by the premium committee.

Prices Current—December 17.

FLOUR, PER BARREL.

Pennsylvania and Brandywine	$8 00 a 8 50
Western	8 37 a 0 00
Scraped	7 50 a 7 75
Middling	5 00 a 0 00
Rye Flour	5 00 a 0 00
Corn Meal	3 75 a 0 00
Buckwheat Meal, per cwt	2 25 a 2 75

GRAIN, PER BUSHEL.

Wheat, Pennsylvania	$1 70 a 1 78
——Southern	1 70 a 1 77
Rye, Penn'a	1 00 a 1 12
—— Southern	96 a 98
Corn, Penn'a, round yellow	85 a 86
—— Southern, yellow	84 a 86
—— White	83 a 84
Oats, Penn'a	41 a 44
—— Southern	42 a 43
Barley, Eastern	1 15 a 1 25
—— Penn'a	1 05 a 1 10
Peas	88 a 1 12
Beans, white	1 50 a 1 75

PROVISIONS.

Beef, mess	$15 00 a 16 00
—— prime	10 00 a 11 00
Pork, mess	25 00 a 26 00
—— prime	19 00 a 20 00
Bacon, western, per lb	12½ a 13½
Hams, Jersey,	14 a 15
—— Western	12 a 14
Butter, extra keg, No. 1	18 a 21
Cheese, country	8½ a 10
Lard, western	12 a 13
Philadelphia	12 a 13
Jersey	13 a 14

WOOL, PER POUND.

Prime Saxony	55 a 60
American full blood	50 a 55
—— ¾ blood	45 a 49
—— ½ blood	40 a 43
—— ¼ blood and common	35 a 37
Lamb's sup. pull	45 a 50
Do. Nos. 1, 2, and 3	33 a 45

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Hay, Timothy, per 100 lbs.	85 a 1 00
Clover	75 a 90
Hemp, American dew rot, per ton	$145 00 a 150 00
Hops, per lb. 1838, prime	12 a 18
Plaster of Paris, per ton	$4 00 a 4 12
Clover Seed, per bushel	13 00 a 14 00
Flax Seed, rough	1 75 a 1 80
Timothy Seed	2 75 a 3 50
Herd Grass, of Red Top	0 62 a 0 75
Sumac, American, per ton	35 00 a 37 50
Tallow, American, per lb.	11 a 11½

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NEW YORK, December 15.

Flour, per barrel	$8 50 a 9 00
Wheat, per bushel	1 80 a 1 85
Corn, per bushel	92 a 95
Rye, per bushel	1 12 a 1 15
Oats, per bushel	50 a 58

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